Rec'd 04/03/03 Antha

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Superfund
4th Floor, L &C Annex
401 Church Street
Nashville, Tennessee 37243-1538

SITE: Athens Furniture
BREAK: 13
OTHER: VI

March 31, 2003

Tony DeAngelo
Site Assessment Project Officer
U.S. Environmental Protection Agency
Region 4
61 Forsyth Street S.W.
Atlanta, GA 30303-8909

Dear Tony:

Enclosed is the PA for Athens Furniture, Inc. in McMinn County, TN. Staff is recommending that a SI be conducted at this site.

The SI Rescore for Oak Grove in Paris, TN was mailed directly to Femi by the Jackson EAC office.

If you need additional information or have any questions, please contact me at (615) 532-0925.

Sincerely,

Suzanne Wilkes

Suzanne Wilkes
Division of Superfund

* McMinn Cnty - CEAC - NY
* Oak Grove - JEAC - FA

PRELIMINARY ASSESSMENT
ATHENS FURNITURE INDUSTRIES INC.
MCMINN COUNTY, TENNESSEE
TND000814525

March 27, 2003

TENNESSEE DEPARTMENT
OF
ENVIRONMENT AND CONSERVATION
DIVISION OF SUPERFUND

Prepared By

Angela Young
Environmental Specialist

Approved By

Nancy Frazier
Environmental Field Manager

March 24, 2003

REPORT: Preliminary Assessment
Site: Athens Furniture Industries Inc.
1241 Frye Street
Athens, McMinn County, TN 37303

CERCLIS NO: TND000814525
TN DSF FILE NO: 54-519

Prepared by Angela Young, Project Manager
Tennessee Division of Superfund

1. INTRODUCTION

1.1 Introduction

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments And Reauthorization Act of 1986 (SARA), The Tennessee Division of Superfund (TDSF) conducted a Preliminary Assessment (PA) at the Athens Furniture Industries Inc. site in McMinn County, Tennessee.

1.2 Objectives

The purpose of this investigation was to collect information concerning conditions a the Athens Furniture Industries Inc. site to confirm or deny any threat posed to human health and the environment and to determine if there is a need for additional action.

1.3 Scope of Work

The scope of the investigation consisted of the following:

- Review of the available file information within the Chattanooga, TN Department of Environment and Conservation Field Office.
- A comprehensive target survey. This consisted of reviewing the available information, in conjunction with offsite reconnaissance.
- Interviews with local agencies and utilities.
- Onsite reconnaissance of the facility.

2. SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 Location

The Athens Furniture Industries Inc. site is located at 1241 Frye Street in Athens, McMinn County, Tennessee (Figure 1). The site and surrounding area, within four miles, is depicted on the Athens 125-NE and the Riceville 125-NW topographic quads (Reference 1). The site coordinates were obtained using a hand held GPS unit during field reconnaissance. The centroid of the site was not accessible therefore the position, Latitude 35° 26' 31"N and Longitude 084° 33' 46" W, was taken at the southeast boundary of the property. (Reference 2). Directions to this site from Chattanooga, TN are as follows. Take I-75 N to the Athens Exit Exit 49 Athens/Decatur. Turn right on Highway 30 (David W. Lillard Memorial Parkway) and proceed to Old Riceville Road. Turn right on Old Riceville Road then left onto Maple Street. Frye Street will be on the left (Reference 1). The facility begins at the corner of Frye and Maple (Figure 2).

The climate of McMinn County is humid and mild. Temperatures are typically moderate, averaging 37.8° F in winter and 75.1° F in the summer. Total annual precipitation averages 57 inches. (Reference 3, pg. 14).

2.2 Site Description

Athens furniture Industries occupies approximately 27 acres of land in the city of Athens, McMinn County, Tennessee (Reference 4). The property is situated between to valleys. Dry Valley to the west and Oostanaula Valley to the southeast. In most areas, the difference in elevation between the valleys and the adjacent ridges is between 100 and 200 feet (Reference 3, page 13). The site contains several buildings that appear to be warehouses and other manufacturing areas.

The office and asphalt parking lot are located at the northeast corner and are separated from the other buildings by Matlock Avenue. The parcel is slightly higher in elevation on the southern boundary. The property is irregular in shape, and bordered on two sides by perimeter ditches. One ditch is approximately two feet deep and runs south between the office and manufacturing building. The remaining ditch is approximately 4 feet deep and parallels the Southern Railroad running east and west. The manufacturing side of facility is fenced except for the southeast boundary where a fire occurred in 2001. The manufacturing area contains no impervious surfaces other than the buildings. The yard of the facility is mostly covered by dirt and gravel. The western boundary is covered with grass and is adjacent to the Hammond Cemetery (Figure 2, Reference 2).

2.3 Operational History

The Athens Furniture Inc. property is located 1241 Frye Street and is owned by W.G. Clark and Alisha Clark since 2001 (Reference 4). The manufacturing facility was established in 1905 to manufacture furniture items (Reference 5). Other parties prior to the Clarks have owned the property. Previous owners include: New Athens, Inc. (1987) Athens Furniture Inc. (1982), Iva and Carl Lay (1978), Susan and Frank Carpenter, Athens Home Décor (1975), Royal Crown Cola Company (1972), Dorothy and Joseph Frye (1948) (Reference 4). No records could be located prior to 1980 that describe operations of the facility.

Two plants exist on the property at the corner of Matlock Road and Frye Street. The bed plant began operation in 1946 manufacturing solid hardwood bedroom furniture from start to finish beginning with uncut lumber, which was shaped, sanded and given a natural type finish. Stains and lacquers were applied using spray guns. The solvent blend used for all applications contained methyl ethyl ketone, toluene, methanol, and other alcohol's, and petroleum naphtha. When workers applied or changed stains, the spray guns were cleaned by dipping them into a bucket of lacquer thinner. Spray guns were also cleaned at the end of workday (Reference 6).

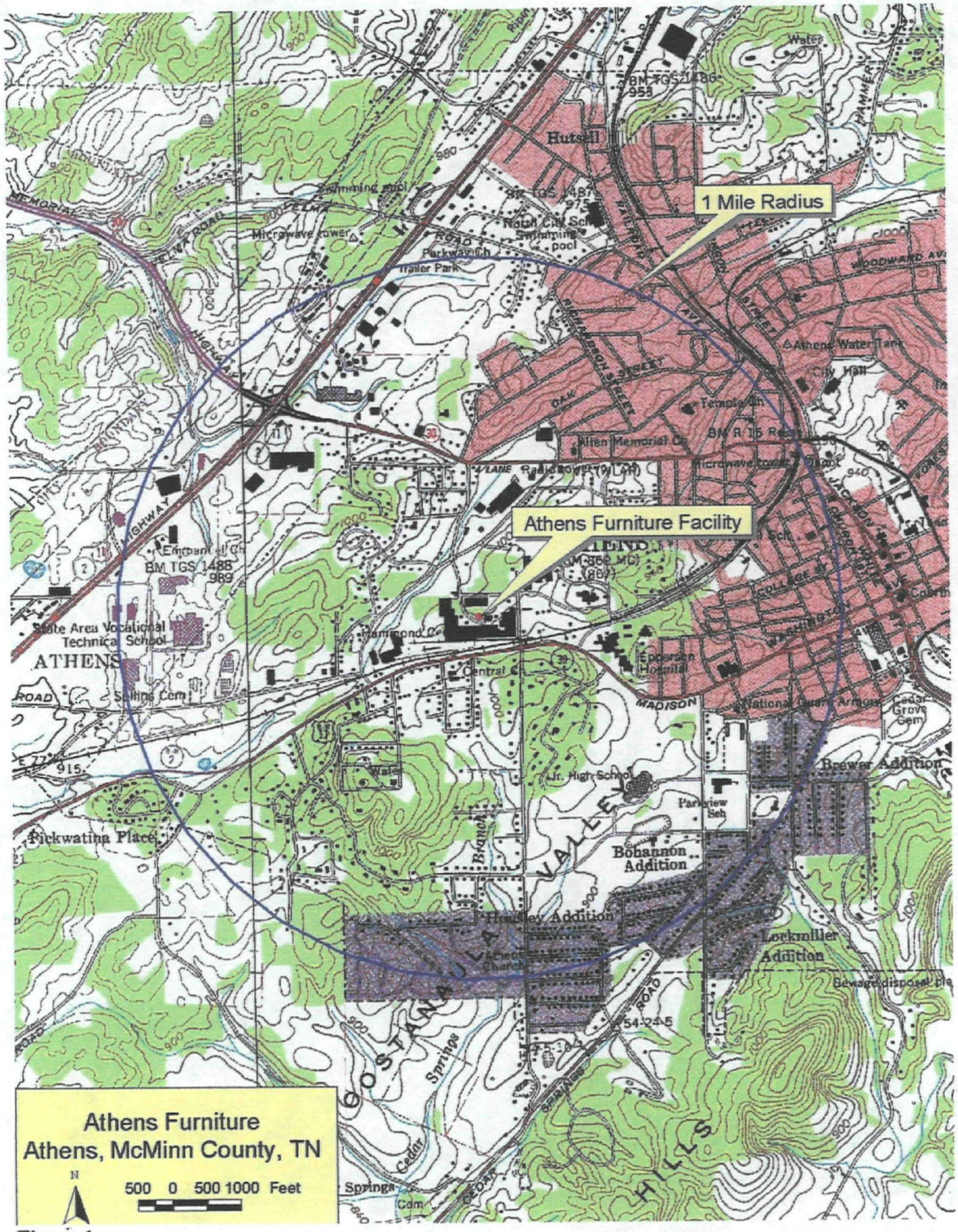


Figure 1
Athens Furniture
DSF File No. 54-519
Athens quadrangle 125-NE
McMinn County, Athens Tennessee
7.5-minute series (topographic)

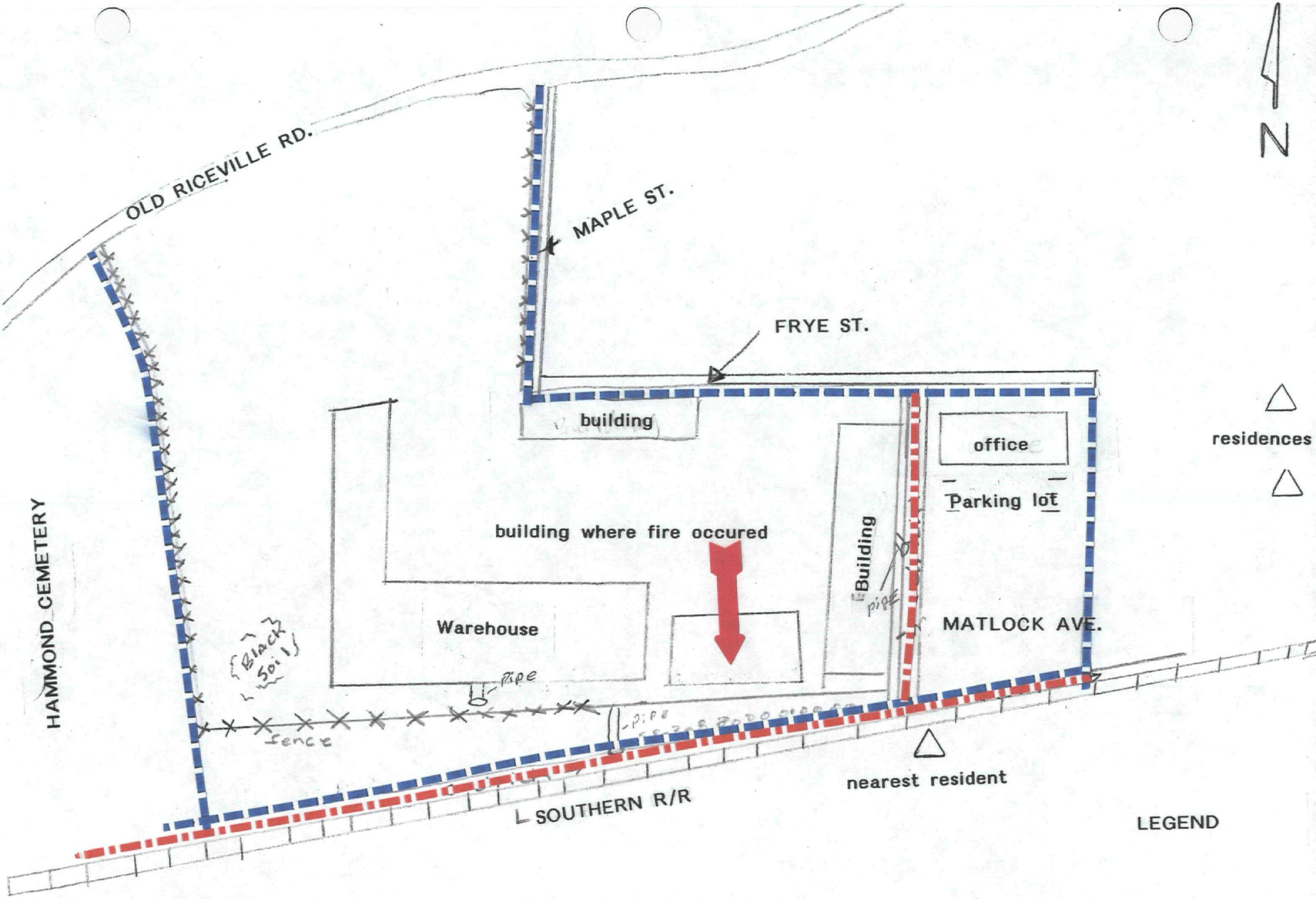


FIGURE 2

Athens Furniture Industries Inc.
Site No. 54-519
Not to Scale

The Dimension Plant began in 1978 and is adjacent to the Bed Plant. This plant manufactured wooden desks. Acetone was used to clean rollers that applied a base coat to desktops. Lacquer thinner was used to clean spray guns. Spent acetone and lacquer thinner were poured into 55 gallon drums, which accumulated outdoors at the rear of the plant, in an unknown location. The Dimension plant contained a boiler, which primarily burned wood trimmings and hazardous waste as fuel (Reference 6). The Dimension plant burned wood scraps too large for their baghouses in an outside pit (Reference 7).

A leak/spill of furniture sealant material was reported to The Division of Solid Waste Management on January 5, 1998. Division of Solid Waste Management records indicate the leak was in an underground transfer pipe near a concrete tile which allowed the material to flow to an open concrete ditch (approx. 210' long) running between two buildings. The material then entered an open dirt drainage area leading away from the building alongside a railroad track (Reference 8). DSWM file does not indicate which building is the Bed plant and which is the Dimension plant.

Athens Furniture was closed in 2001 due to bankruptcy (Reference 4).

3. GROUNDWATER PATHWAY

3.1 Geologic Setting

McMinn County is located within the Valley and Ridge physiographic province. Numerous northeast-southwest trending elongated valleys characterize the Valley and Ridge and ridges composed of Paleozoic carbonate and clastic rocks, predominantly limestone, dolomite, shale, and sandstone. Ridges are formed of resistant layers of sandstone or cherty soils, while the valleys are underlain by more erosion prone limestone, dolomite, and shale (Reference 3, 13). The rocks of the Valley and Ridge Province have been subjected to thrust faulting and are typically folded elongated anticlines and synclines resulting in moderate to steep angles of dip (Reference 9 pg. 49, 50).

Carbonate rocks such as limestone and dolomite tend to weather along planes of least resistance such as fractures, joints, and bedding planes. This type of weathering may cause the soil/bedrock contact to be pinnacled and /or slotted with more resistant beds of limestone protruding into the soils above. The limestone typically weathers to clastic, silty clays (Reference 9 pg. 90, 91).

The members of the Knox Group, beginning with the Chepultepec dolomite underlie the facility. The Chepultepec dolomite is fine to medium grained, light tan to gray, and is estimated to be 700 feet thick in the Cleveland area. Beneath the Chepultepec is the Copper Ridge dolomite (Reference 9 pg.11, 13,14). The Copper Ridge dolomite is estimated to be 1,000 feet thick in the Cleveland area and consists of dark crystalline, massive dolomite, which is commonly asphaltic. Underlying the Copper Ridge is the Conasauga Group. The Conasauga group, undivided, is composed of the Maynardville limestone at the top of the group, the Nolichucky shale in the middle, and the lower siltstone and shale sequence at the base (Reference 9 pg.11, 13,14).

The Maynardville limestone, which is approximately 350 feet thick, varies from massive blue argillaceous limestone in the lower part to a thin-bedded light gray dolomite in the upper part. The Nolichucky shale and underlying siltstone and shale sequence is estimated to be less than 1000 feet thick, but it is impossible to say for certain due to structural conditions and a lack of exposures. The Nolichucky shale, from top to bottom, consists of greenish-yellow clay shale approximately 100 feet thick, followed by a massive to thin-bedded blue argillaceous limestone of unknown thickness (Reference 9, pg. 16).

The primary pathway for groundwater flow would be expected to occur within secondary fractures and voids in the bedrock These pathways tend to decrease in size and abundance with increase in depth

(Reference 11 pg. 19-21). These formations have considerable amounts of sand in the bedrock, as well as an appreciable content of iron. Tellico, Steekee, and Red Hills soils are predominant in the uplands. Alcoa soils are on the stream terraces and foot slopes in the area. Neubert soils are on flood plains (Reference 3, pg. 13).

3.2 Ground Water Targets

The Athens Utilities Board serves most residents from New Spring and three groundwater wells blended into Ingleside Spring. The municipal groundwater wells, New Spring, and Ingleside Spring are located approximately 2 miles northeast of the Athens Furniture Inc. site. Athens Utilities Board serves 17,037 customers with a maximum daily pumping rate of 2.084 million gallons (Reference 10). Athens Furniture had a groundwater well on site prior to 1970, which was used for industrial purposes (Reference 11). Athens Utility Board confirmed that there are several private wells within 0.5 miles of the site (Reference12). Evaluation of the 2000 census data for McMinn County indicates an average household population of 2.5 persons (Reference 17 pg. 1). This data along with information provided from the utility indicates the potential of 40 people using groundwater within the 0.25 and 0.50-mile radii.

3.3 Ground Water Conclusions

Groundwater pathways are considered to be a threat due to the proximity of private drinking water wells to the site, the existence of Karst terrain underlying the site, the operational history of Athens Furniture Inc, and the nature of volatile substances.

4. SURFACE WATER PATHWAY

4.1 Hydrologic Setting

Field reconnaissance indicates that overland drainage from the site appears to flow south and southeast from several points and enters dirt ditches along parcel boundary (Reference 2). Once entering these ditches, Athens Utilities Board assumes the ditches enter the City of Athens storm sewer system. The probable point of entry (PPE) is considered to be where the storm sewer system discharges into Oostanaula Creek located at the intersection of N. Jackson Street and Green Street approximately one mile from site (Reference 12). However, several ditches and drainage areas were observed that did not appear to intersect with storm drains (Reference 2).

Once drainage reaches Oostanaula Creek, the surface water body flows in a south to southwest pattern the remaining 15 miles of the surface water pathway in this creek. A permit filed with TNWPC lists Oostanaula Creek as the receiving water body (Reference 13). The average flow rate for Oostanaula Creek is 1-12 cubic feet per second (Reference 12). The facility is outside of the 500-year flood zone (Reference 14).

4.2 Surface Water Targets

There are no drinking water intakes located within 15 downstream miles of the site (Figure 3). Oostanaula Creek is used as a backup water supply for the Athens Utility Board. Athens. The intake is located approximately 2 miles upstream of site. (Reference 10).

Wetlands are located along the 15-mile surface water pathway on sides of Oostanaula Creek for 9.1 miles. There is no recreational fishing along Oostanaula Creek (Reference 13).

4.3 Surface Water Conclusions

This pathway is considered to be a threat for the known spill of 1000 gallons of furniture sealant material, which is assumed to have entered Oostanaula Creek.

5. SOIL EXPOSURE AND AIR PATHWAY

5.1 Physical Conditions

The approximate 27-acre site is covered by 70 percent buildings and asphalt, 10 percent soil and gravel, 10 percent wooded, and 10 percent grass coverage around perimeter of site and on the eastern boundary. Currently the site appears abandoned and partially demolished due to a fire that occurred on July 29, 2002 (Reference 15). The property surrounding the facility is industrial, with the exception of residential areas west and south of the property and a cemetery on the western boundary. The facility is partially fenced and is bordered by a gravel access road and Southern Railroad easement. The site is easily accessible from the southern boundary where the fire originated. A second fire occurred at the site on November 12, 2002. This fire was an open fire and was reported after TDSF initial site discovery (Reference 15) Field reconnaissance revealed soil staining on the west side of site nearest the Hammond Cemetery (Reference 2).

5.2 Soil and Air Targets

Currently, the facility appears to be vacant and partially fenced. (Reference 2). Tennessee Air Pollution Control files indicate a wood scrap burn area was located on the site (Reference 7). Residential areas are located adjacent and within 200 feet of the facility (Reference 1). There is also the possibility that sensitive environments for the Swainsons Warbler exist near the site (Reference 18).

5.3 Soil Exposure and Air Pathway Conclusions

Soil Exposure pathways present concern due to the unfenced southern boundary, and the proximity of residences adjacent to the site. The facility is not in operation so there is not a concern of air release.

6. Summary and Conclusion

Athens furniture Industries occupies approximately 27 acres of land in the city of Athens, McMinn County, Tennessee. The manufacturing facility was established in 1905 to manufacture furniture items. Stains and lacquers were applied using spray guns. The solvent blend used for all applications contained methyl ethyl ketone, toluene, methanol, and other alcohol's, and petroleum naphtha.

Based on the current conditions from the site, it is possible that threats exist to human health or the environment. This conclusion applies to three of the four pathways and is supported by documentation from other regulatory divisions and field reconnaissance. Further assessment is needed.

Site Name: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: Andy Carroll & Angela Young
Photo taken by: A. Carroll

Site No. 54-000
Date: 10-14-02
Time: 1400
Document prepared by: Andy C

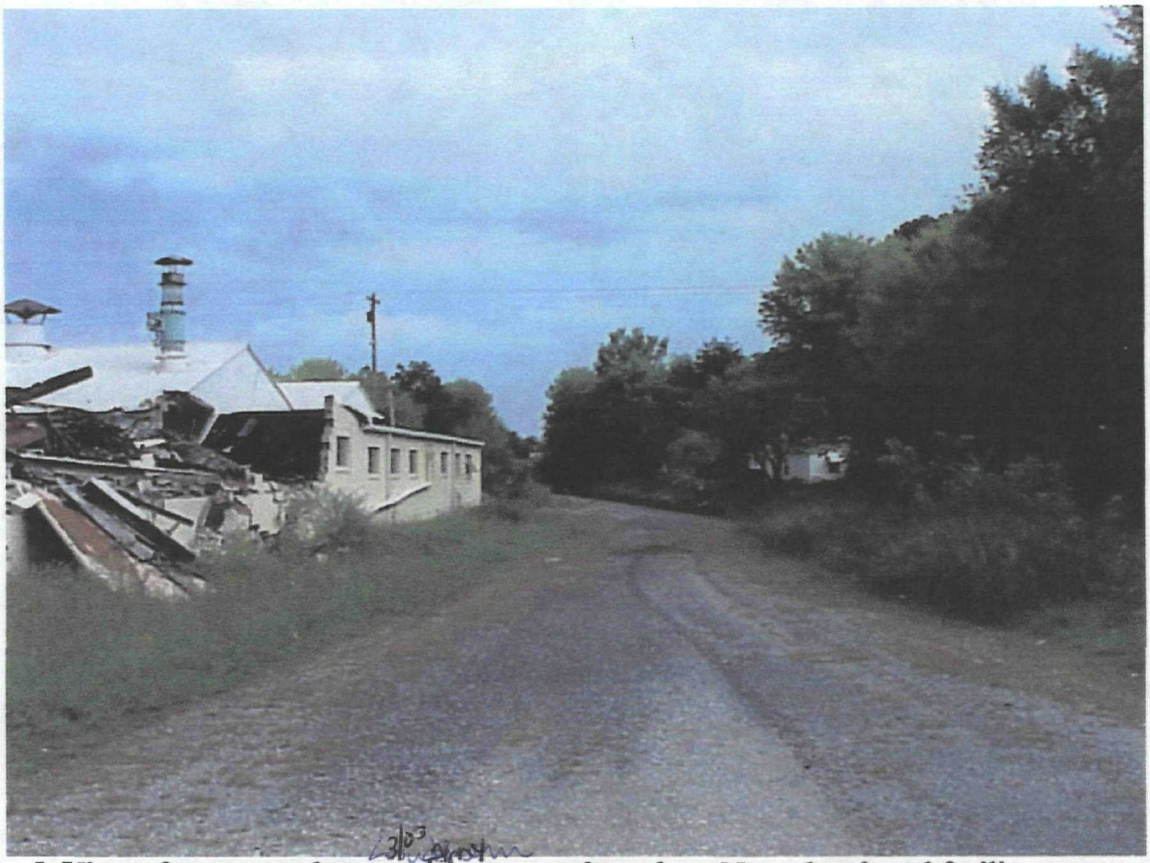


Photo 5: View of access road on ~~Southern~~ property boundary. Note abandoned facility structure on left and residence on right. A rail line borders the access road on the right. Photo taken facing East. 3/03

Site Name: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: Andy Carroll & Angela Young
Photo taken by: A. Carroll

Site No. 54-000
Date: 10-14-02
Time: 1400
Document prepared by: Andy C

Photo 3: View of partially collapsed and demolished facility on the ~~Acme~~ Southern boundary of property. Photo taken facing west.

Photo 4: View of partially collapsed/demolished facility structure. View taken facing NW

Site Name: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: Andy Carroll & Angela Young
Photo taken by: A. Carroll

Site No. 54-000
Date: 10-14-02
Time: 1400
Document prepared by: Andy Carroll

Photo 1: View of vacant, former Athens Furniture facility as seen from main gate off of access road from Old Riceville Rd. Photo taken facing east.

Photo 2: View of the fire damage in western facility building. Photo taken facing SW.

Site: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: A. Young, A. Carroll
Photo taken by: A. Carroll

Site # 54-519
Date: 1-23-03
Time: 1100
Document prepared by: Angela Young

Photo4: Additional Photo taken of darkened soil found on the southeast corner of site near cemetery and Old Riceville Rd

Site: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: A. Young, A. Carroll
Photo taken by: A. Carroll

Site # 54-519
Date: 1-23-03
Time: 1100
Document prepared by: Angela Young

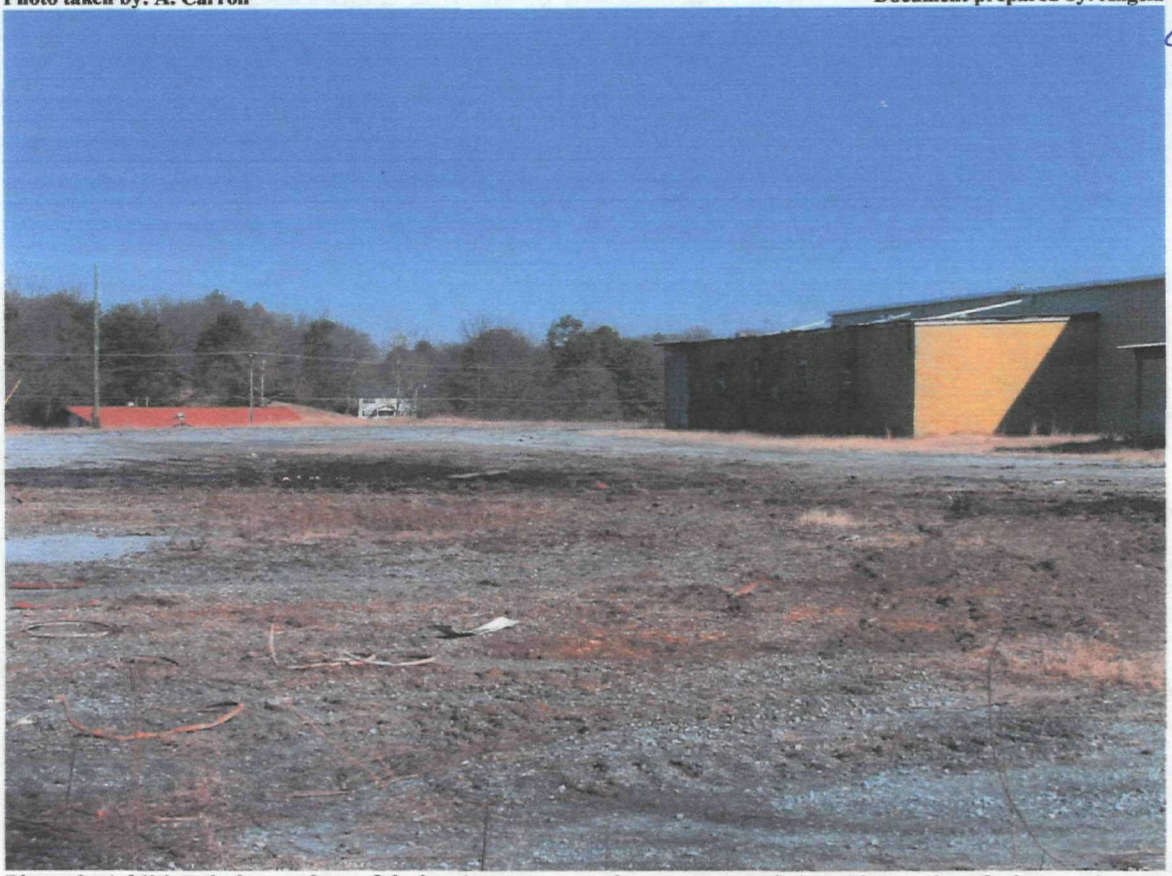


Photo 3: Additional photo taken of dark substance a south east corner of site. Photo taken facing north west towards Old Riceville Rd.

Site: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: A. Young, A. Carroll
Photo taken by: A. Carroll

Site # 54-519
Date: 1-23-03
Time: 1030
Document prepared by: Angela Young

Photo 2: Corrugated metal pipe located on south side of building near cemetery. Photo taken along fence line of Athens furniture and Cemetery. Photo taken facing north.

Site: Athens Furniture
Location: Athens, McMinn County, Tennessee
DSF Personnel Present: A. Young, A. Carroll
Photo taken by: A. Carroll

Site # 54-519
Date: 1-23-03
Time: 10:30 a.m.
Document prepared by: Angela Young

Photo 1: Photo shows approx. 18inch Concrete pipe located on southern side of site which is discharging into a ditch on r/r easement. Note the Approx. 6inch PVC pipe inside the concrete pipe.

REFERENCES

1. U.S. Geological Survey, 7.5-minute topographic quadrangle map of Tennessee: Athens, 125-NE, 1964, photo revised 1990.

2. Tennessee Department of Environment and Conservation, Division of Superfund Field Book, October 15, 2002 and January 22, 2003.

3. U.S. Department of Agriculture et.al, "Soil Survey of McMinn County, Tennessee" 1996, pp.11-16.

4. McMinn County, Property Assessor, Deed Research, January 22, 2003.

5. Harris Info Source, "Tennessee Manufactures Directory" 1999, p. 41

6. Tennessee Department of Environment and Conservation, Division of Solid Waste Management, File Research.

7. Tennessee Department of Environment and Conservation, Tennessee Division of Air Pollution Control, Annual Inspection November 1994

8. Athens Furniture Industries, Inc., Leak/Spill Report, January 6, 1998.

9. Tennessee Department of Environment and Conservation, Division of Geology, Bulletin 61, 1959, reprinted 1993.

10. Tennessee Department of Environment and Conservation, Division of Water Supply, Public Water System Data, July 16, 2002.

11. State of Tennessee Department of Conservation, Division of Geology, "Groundwater Resources of East Tennessee", Bulletin 58, Part 1, 1956, pp. 19, 20, 284, 285.

12. Jill Davis, Superintendent for Athens Utility Board, email correspondence with Angela Young TDSF, February 12, 2003, March 6, 2003, March 24, 2003. Re: Site drainage and well location within 4-mile radius.

13. State of Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Notice of Intent, April 25, 1997, 303 (d) List pp.58, 59,178.

14. Federal Emergency Management Agency, Flood Insurance Rate Map, December 4, 1986.

15. Tennessee Department of Commerce and Insurance, Fire Prevention Database, Incident Reports, July 29, 2002 and November 12, 2002.

16. Chattanooga Times Free Press, Article, July 31,2002.

17. U.S. Census Bureau, State and County Quick Facts "Profile of General Demographic Characteristics" 2000.

18. Tennessee Department of Environment and Conservation, Division of Natural Heritage, Rare species of McMinn County, July 25, 2002.

Reference 1

U.S. Geological Survey 7.5-minute topographic quadrangle maps

McMinn County, Tennessee

Athens 125-NE, 1964, photorevised 1990

Riceville 125-NW, photorevised 1980

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 10660175 Site ID: TND000814525

Site Name: Athens Furniture

Nature of Material:

Map:	☑	Computer Disks:	☐
Photos:	☐	CD-ROM:	☐
Blueprints:	☐	Oversized Report:	☐
Slides:	☐	Log Book:	☐

Other (describe): Drainage Map

Amount of material: _____

* Please contact the appropriate Records Center to view the material *

Reference 2

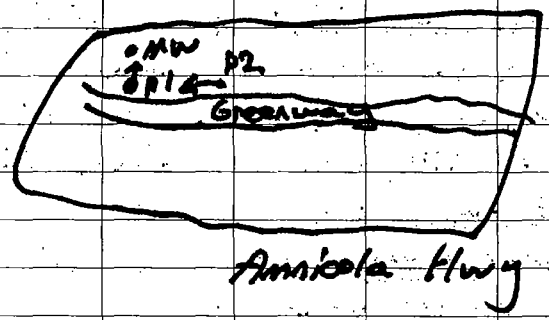
Tennessee Department of Environment and Conservation

Division of Superfund

Field Book

33-532

054 Amnicola Dump 10-9-02



350pm left site

Andrew Carroll 10-9-02

10-15-02 Athens Furniture 055

Reason for Visit: site prescreen

DSF Present: ADC AMY

Weather Conditions - overcast 65°F, rain in last 24 hrs ~ 1/4"

1400 - AMY & ADC arrive onsite perimeter, gate off of Old Riceville Rd

- site is large former furniture manufacturer plant
- a recent fire in summer 2002 prompted inspection
- site is abandoned
- parts of buildings have collapsed
- site is For sale
-

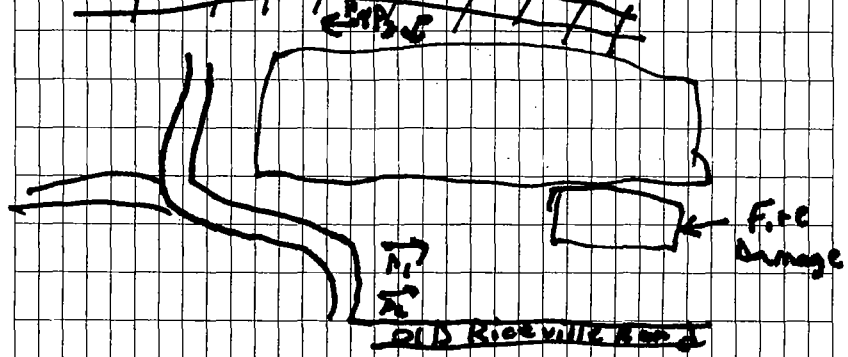


Photo log: 1

Andrew Carroll 10-15-02

DSF File # 54-519
CC DSFCO _____
NEF
TK
Amy

1-22-03 Athens Furniture 54-519
Arrived at Site: 1030
DSF Personnel: A. Carroll, A. Young
Weather: Sunny, Clear, cold 30's-40's
Purpose of visit: Additional site recon to determine surface water pathways.
Building remains in an abandoned state of disrepair. Some debris from fire has been removed.
A. Carroll and A. Young walked along R/R easment to determine flow off water off site.
Picture 1 was taken of Concrete Pipe coming from site discharging into ditch that runs east parallel with the R/R. There is a 6-8" PVC Piper inside of concrete Pipe.
As we proceeded along the fenceline heading West Picture 2 was taken of 36" Corrugated metal Pipe that appear to run under building - We GPS the location as 35° 26' 28.5" / 084° 36' 49.87".
We continue walking along fence →

— Angela Young 1-22-03 —

1-22-03

Athens Furniture Cont 54-519

Time 11:00am

on southern boundary between R/R easement and site the is older part of cemetary with circular drive.

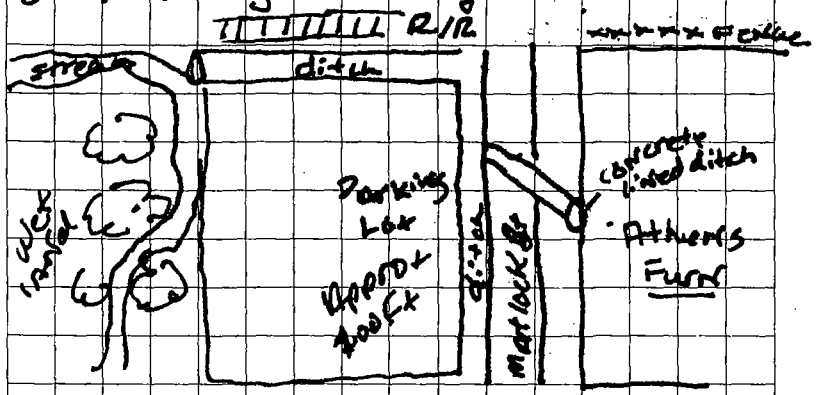
When we came to end of parcel we came upon an area that appeared burned. File history tells of an area used to burn pallets in the back of plant. This black soil is possibly the pallet burn area.

Picture 3&4 was taken of area with black charred soil.

We then turned around a proceeded back to check o the boundary of parcel.

Time 1115am

We found two ditches and one intermittant stream on eastern side of site. A. Carrol and A. Young followed each ditch to determine discharge point of each ditch. Found concrete lined ditch leading from building which crosses under Matlock St. an discharges into ditch runnig south to r/r easment. Another ditch running east/west joins and they both discharge into a stream that disappears in a wetland area east of property boundary.



Not to Scale

Time 1145

A. Carroll and A. Young left site to estimate Residence proximity to site one house within 50ft of site. Site is not totally fenced. Some demo

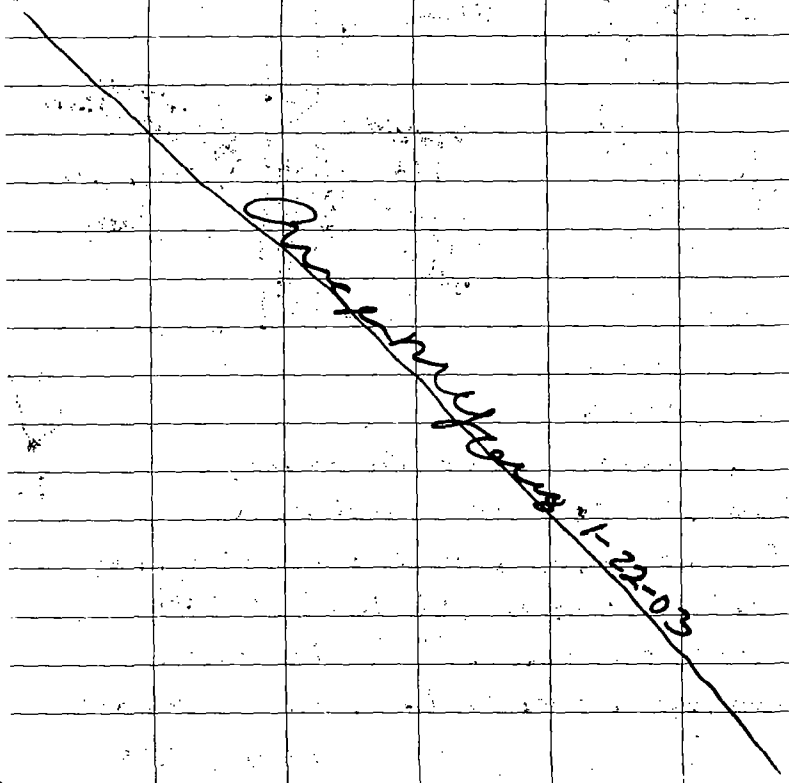
— Angela M Young 1-22-03 —

— Angela M Young 1-2203 —

014

0138 Athens Furniture. 54519 Cont. Work has been done onsite Crye-leike Realty sign still in place. Left Site 1200pm.

Life Care Center of Athens located on Old Riceville Rd with 1/4mile of site. Followed Hwy 39 west appox 1/2 mile to find unnamed tributary that runs parrallel with the highway and R/R tracks.



Reference 3

U. S Department of Agriculture
Tennessee Agricultural Experiment Station
Tennessee Department of Agriculture
McMinn Board of County Commissioners

Soil Survey, McMinn County, Tennessee, 1997

USDA United States Department of Agriculture

Natural Resources Conservation Service

In cooperation with the Tennessee Agricultural Experiment Station, the Tennessee Department of Agriculture, and the McMinn County Board of Commissioners

Soil Survey of McMinn County, Tennessee

Detailed maps are available in two formats. Digital copies (SSURGO) that can be used in a Geographic Information System (GIS) can be accessed at http://www.ftw.nrcs.usda.gov/ssur_data.html. (The State Soil Survey Area ID is TN107). Paper copies of the maps can be obtained from the USDA Service Center, Athens Field Office/McMinn County Soil Conservation District, 320 North Congress Parkway, Suite C, P.O. Box 524, Athens, TN 37303 (telephone number 423-745-6300, ext. 3).

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1996. Soil names and descriptions were approved in 1997. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1996. This survey was made cooperatively by the Natural Resources Conservation Service, the Tennessee Agricultural Experiment Station, the Tennessee Department of Agriculture, and the McMinn County Board of Commissioners. The survey is part of the technical assistance furnished to the McMinn County Soil Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Cover: A Jersey dairy herd in an area of Waynesboro clay loam, 5 to 12 percent slopes, eroded. The corn and grass strips in the background are in areas of Dewey silty clay loam, 5 to 12 percent slopes, eroded, on the ridge and Etowah loam, 2 to 5 percent slopes, on the footslopes.

Additional information about the Nation's natural resources is available on the Natural Resources Conservation Service home page on the World Wide Web. The address is http://www.nrcs.usda.gov.

Soil Survey of McMinn County, Tennessee

By Richard L. Livingston and Melissa C. Oliver, Natural Resources Conservation Service

Fieldwork by Melissa C. Oliver and Richard L. Livingston, Natural Resources Conservation Service, and Billy R. Roach, McMinn County

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with
Tennessee Agricultural Experiment Station, the Tennessee Department of Agriculture, and the McMinn County Board of Commissioners

McMinn County is in the southeastern part of Tennessee (fig. 1). It is about 139 miles from Nashville, 54 miles from Knoxville, and 50 miles from Chattanooga. It is bordered on the north by Loudon and Roane Counties, on the south by Bradley and Polk Counties, on the west by Meigs County, and on the east by Monroe County. The Hiwassee River forms part of the southern border. Athens, the county seat, is near the geographic center of the county. Etowah, Englewood, Niota, Calhoun, and Riceville are other towns in the county. According to census data, the county had a population of 45,001 in 1995.

The county is roughly triangular in shape and has an area of 276,700 acres, or about 432 square miles, of which 2,300 acres is water. The U.S. Department of Agriculture, Forest Service, owns about 2,200 acres in the county.

This soil survey updates the survey of McMinn County, Tennessee, published in 1957 (Bacon and others 1957). It provides additional information about the soils and has maps that have a photographic background.

General Nature of the County

This section gives general information about the county. It describes history and settlement; transportation and industry; natural resources; physiography, drainage, and geology; and climate.

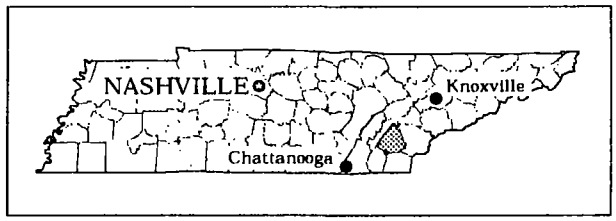


Figure 1.—Location of McMinn County in Tennessee.

History and Settlement

McMinn County was formed from a part of the Hiwassee District owned by the Cherokee Indians. The land was ceded to the United States by a treaty that was signed at Washington, D.C., on February 27, 1819. Under terms of the treaty, those individuals who chose to become citizens of the United States were given a reservation of 640 acres. Very few individuals accepted the offer. A grant of 640 acres also was made to a few other individuals who were deemed capable of managing their own affairs. These grants soon passed into the hands of land speculators (History of Tennessee 1887).

On November 13, 1819, the Legislature at Murfreesboro, Tennessee, passed an act to organize McMinn County. County court was organized on

March 6, 1820, in the home of John Walker at Calhoun. Justices present were George Colville, John Walker, Benjamin Griffith, Samuel Dickey, Hambright Black, Archibald Black, and Jacob Sharp (History of Tennessee 1887). Judge Charles Fleming Keith organized the first circuit court in the spring of 1820 at Calhoun (Byrum 1984). Court was temporarily held in a log structure erected in Calhoun before it was transferred to Athens in December 1923 (History of Tennessee 1887).

The county was named in honor of Joseph McMinn, who was born in Pennsylvania in 1758 and migrated to the east Tennessee area in about 1775. He was active in the 1796 Knoxville Convention, which drafted the first Tennessee State constitution. McMinn insisted on the inclusion of a "bill of rights" for the constitution. Later, he personally carried the State constitution to George Washington. McMinn was elected governor of Tennessee in 1815, 1817, and 1819 (Byrum 1984). At the time of his death, Gov. McMinn was in charge of the Cherokee Agency across the Hiwassee River. His body is buried in the yard adjoining the Presbyterian Church in Calhoun (History of Tennessee 1887).

Transportation played a big role in the location of towns and villages in the county. Many of the towns were established along the Hiwassee River or, in later years, along railroad lines.

Calhoun, which is on the banks of the Hiwassee River, was the first town established in the county. It was laid out by Major John Walker and named in honor of John C. Calhoun.

The need for a more central location for the county seat prompted the establishment of Athens. The town was laid out in 1821–22 on land donated by William Lowry. Courts were moved to Athens in December 1823, and the seat of justice was formally established by the State Legislature in 1824. The act for organizing a chancery court at Athens was passed on January 30, 1844. In 1887, the population of Athens was estimated at 1,500 and the town was said to be one of the most prosperous in east Tennessee.

Riceville had its beginning in 1855 on a block of land that C.N. Rice bought from Native Americans. The town was established soon after railroad construction reached the area.

Niota was formerly known as Mouse Creek. J.H. Gill, who opened the first store in the town, built the first house in 1855. Upon completion of the railroad, the citizens of the community erected a large railroad depot.

In 1870, Englewood began as an industrial community that was started by three brothers—James, Mortimer, and Jacob Brient. It was built along the banks of Chestuee Creek, about 2 miles south of the present town of Englewood. In 1907, the cotton mill was moved to a location near Tellico Junction, where a small community had sprung up near the railroad junction. The name of Tellico Junction was changed to Englewood in 1908.

Etowah was founded in 1907. L&N Railroad later bought 1,500 acres of farmland from Joseph Cobb, James L. Cooper, William Paris, and William T. Peck in order to locate a rail yard and service center in the town. Etowah was chartered in 1909.

In 1950, the population of Athens was 8,618 and the population of the county was 32,024. By 1990, the population of Athens had reached 12,573 and the county population had increased to 43,552.

Transportation and Industry

McMinn County has an excellent network of highways and roads, almost all with some type of bituminous surface. Interstate Highway 75 bisects the county northeast to southwest. U.S. Highway 11 runs roughly parallel to I–75, and U.S. Highway 411 crosses the eastern part of the county in a similar fashion. The major State highways are 68 and 30. State Highway 68 runs east-west across the northern tip of the county, and State Highway 30 begins in Etowah and runs roughly from the southeast to the northwest across the county. Numerous secondary State highways and county roads supplement the main arteries.

Two railroads and numerous motor freight companies serve businesses in the county. One port facility is available on the Hiwassee River near Calhoun. Commercial air service is available in Knoxville and Chattanooga. The McMinn County Airport is also available for smaller planes and private transportation.

Industrial enterprises include manufacturers of textile products, automotive parts, electrical appliances and parts, wood products, furniture, chemicals, plastic products, metal and aluminum fabricated products, dairy products, newsprint, and farm implements. Farming and the wood industry are also important enterprises in the county.

Natural Resources

Soils, water, minerals, and forestland are important natural resources of McMinn County. There is an abundant supply of fresh water. Year-round streams are common. The main streams that drain the county are Rogers, Spring, Oostanaula, Chestuee, and Conasauga Creeks. On the southern border, the Hiwassee River is part of the tailwaters of

Chickamauga Lake. Springs, small streams, ponds, and wells are numerous in the county, They furnish water for domestic use and for livestock. About half of the county has a State-approved public water supply.

Important mineral resources of the county are mainly limestone and barite. Limestone for construction materials and roads is produced from one active quarry in the county. Several small abandoned quarries are indicated by a special symbol on the detailed soil maps. Barite (barium sulfate) is mined in the northern part of the county. Most of the barite mines are now abandoned.

About 136,500 acres of McMinn County is forested. About 2,200 acres of this land is in Cherokee National Forest. Pulpwood and hardwood production are important industries in the county.

Physiography, Drainage, and Geology

B.A. Hartman, geologist, Natural Resources Conservation Service, helped prepare this section.

Topography in the county varies. The highest point in the county is on Starr Mountain, in the eastern part of the county. It is about 2,300 feet above mean sea level (m.s.l.). The lowest point is in the southwestern part of the county, near the Hiwassee River and Chickamauga Lake. It is about 690 feet above m.s.l. Elevation in the rest of the county ranges from 800 to 1,100 feet above m.s.l. In most areas, the difference in elevation between the valleys and the adjacent ridges is between 100 and 200 feet. Athens, the county seat, is about 880 feet above m.s.l.

McMinn County lies in two major land resource areas—the Southern Appalachian Ridges and Valleys and the Blue Ridge (USDA 1981). Differences in topography can be partly attributed to differential weathering (ease or resistance to weathering) of the underlying bedrock. Shale, limestone, and dolomite weather at a faster rate than sandstone, quartzite, and calcareous (limestone/dolomite) bedrock having a large content of chert or silica cementation. Intense folding and faulting of the rocks also influenced the weathering characteristics and played a large part in the development of the topography in the county.

The Southern Appalachian Ridges and Valleys region is characterized by a series of northeast-southwest oriented ridges and valleys that formed during the late Protozoic mountain building episode that formed the Appalachians. In the central part of the county, cherty dolomite and limestone of Ordovician age form the ridges. Copper Ridge Dolomite, Chepultepec Dolomite, and Longview Dolomite are the principal ridge formers. Bodine, Fullerton, and Dewey soils are common on these geologic formations. The less cherty Kingsport Formation and Mascot Dolomite are generally at the lower elevations (USGS 1952a, 1952b). Dewey and Fullerton soils predominate these areas. Most of the valleys in the central portion of the region are underlain by Cambrian-age Conasauga Shale (USGS 1952a, 1952b). This acid shale bedrock is parent material for the Coile, Townley, Apison, and Corryton series. Some areas of Conasauga Shale, Mascot Dolomite, and the Kingsport Formation are capped with material that was deposited by ancient streams, probably during the Pleistocene epoch. Waynesboro, Etowah, and Tasso soils and the upper part of the Dewey soils formed in these deposits. Younger alluvium on the flood plains was deposited during the Holocene epoch. Hamblen, Steadman, Pettyjon, Rockdell, and Bloomingdale soils are dominant on flood plains in this area.

The Ordovician-age Ottosee Shale and Athens Shale are exposed in a northeast-southwest oriented area that is southeast of Athens, in part of the Oostanaula Creek drainage area. These formations are also exposed near the base of the Red Hills area north of Etowah. Ottosee Shale and Athens Shale are the parent materials for the Nonaburg and Needmore soils. The Red Hills area is highly dissected and has dark red soils. The Ordovician-age Holston and Lenoir Limestones underlie two ridges in the central part of the county and a pronounced lobe north of Etowah. These formations have considerable amounts of sand in the bedrock, as well as an appreciable content of iron. Tellico, Steekee, and Red Hills soils are predominant in the uplands. Alcoa soils are on stream terraces and footslopes in the area. Neubert soils are on flood plains.

In the western part of the county, an area of highly dissected topography is underlain by the Cambrian-age Rome Formation (USGS and Tennessee Division of Geology 1953). This parent material is a heterogeneous mixture of yellow, brown, red, purple, and green siltstone, sandstone, and shale with a few thin layers of limestone or dolomite. Sunlight and Apison soils are common in the uplands. Very few stream terrace deposits are in this area. Hamblen soils are common on narrow flood plains.

The Blue Ridge land resource region is in the extreme eastern part of the county, on Starr Mountain. The Cambrian-age Nebo Sandstone, Nichols Shale, and Cochran Conglomerate underlie most of the area. The Precambrian-age Sandsuck Shale is exposed in a few areas at the base of the mountain (USGS and Tennessee Division of Geology 1953). McCamy and Unicoi soils are the predominant soils formed in areas of arkosic sandstone bedrock. Cataska and Harmiller

soils are the predominant soils formed in areas of shale bedrock. Lostcove and Keener soils are on the lower mountainsides and base slopes. They formed in bouldery and cobbly material that was moved down the mountain slope by gravity and water. Atkins and Arkaqua soils are on the flood plain along Bullet Creek.

Table 19 gives additional information about the relationships between soils, parent materials, and geology of the survey area.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Athens, Tennessee, in the period 1962 to 1990. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on length of the growing season.

In winter, the average temperature is 37.8 degrees F and the average daily minimum temperature is 26.4 degrees. The lowest temperature on record, which occurred on January 21, 1985, is -16 degrees. In summer, the average temperature is 75.1 degrees and the average daily maximum temperature is 87.2 degrees. The highest recorded temperature, which occurred on July 17, 1980, is 105 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 57 inches. Of this, about 30 inches, or 53 percent, usually falls in April through September. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 5.46 inches on March 16, 1973. Thunderstorms occur on about 56 days each year, and most occur in summer.

The average seasonal snowfall is about 6.3 inches. The greatest snow depth at any one time during the period of record was 14 inches. On the average, 3 days of the year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year.

The average relative humidity in midafternoon is about 56 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 64 percent of the time possible in summer and 46 percent in winter. The prevailing wind is from the southwest. Average windspeed is highest, 8 miles per hour, in March.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey

area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area do not fully agree with those of the soils in some adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

Survey Procedures

The general procedures followed in making this survey are described in the "National Soil Survey Handbook" of the Natural Resources Conservation Service and the "Soil Survey Manual" (Soil Survey Staff 1996; Soil Survey Division Staff 1993). The soil survey of McMinn County published in 1957 (Bacon and others 1957), the "Geologic Map of East Tennessee with Explanatory Text" (USGS and Tennessee Division of Geology 1953), and other soil surveys of areas in the Ridges and Valleys and Blue Ridge provinces were among the references used.

Before fieldwork began, boundaries of slopes and landforms were plotted on United States Geological Survey (USGS) 7.5-minute topographic maps at a scale of 1:24,000. Maps from the 1957 soil survey were reduced from a scale of 1:15,840 to a scale of 1:24,000 to aid in transferring the boundaries. These boundaries and soil descriptions were used as a reference to plan soil observations and complete transects. Soil examinations were completed with the aid of a hand auger or spade or a hydraulic soil probe to a depth of 4 to 6 feet or to bedrock, whichever was shallower. After summarization of transects, the older soil series and map units were combined or reclassified, or both, according to the eighth edition of "Keys to Soil Taxonomy" (Soil Survey Staff 1998). Some soil series were dropped from the legend because of updates in soil classification. The 1938 United States Department of Agriculture Handbook, "Soils and Men," was the classification resource used for the 1957 survey. Five soil series were established to fill in gaps caused by the classification conversion and changes in interpretations of certain soil properties.

Samples for chemical and physical analyses were taken from representative sites of several soils in the survey area. The chemical and physical analyses were made by the Soil Survey Laboratory (SSL), Natural Resources Conservation Service, Lincoln, Nebraska, and the Department of Plant and Soils Science, University of Tennessee-Knoxville (USDA 1996). The SSL analyses are available in computerized data files, which can be accessed on the National Soil Survey Center Web site at http://www.nssc.nrcs.usda.gov. The

University of Tennessee analyses are included in a thesis by M.C. Oliver (Oliver 1997).

After completion of the soil mapping on 7.5-minute topographic maps, map unit delineations were transferred by hand to orthophotographs at a scale of 1:24,000. The density of the soil map units was generally decreased as a result of the change in map scale from 1:15,840 to 1:24,000. Surface drainage and cultural features were transferred from 7.5-minute topographic maps.

Reference 4

McMinn County Property Assessor

Deed of Property
November 30, 2001

This Instrument Prepared By:
Miller & Martin LLP (RGD)
Suite 1000
Volunteer State Life Building
832 Georgia Avenue
Chattanooga, Tennessee 37402-2289

Property Transfer Noted
Date 12-7-01 No. 01-2221
Tax I.D. 53M-A-23 + various
McMinn County Property Assessor

Nelesh Cunningham Register
McMinn County
Rec #: 30466 Instrument 30466
Rec'd: 90.00 NBk: 30 Pg 124
State: 6312.94 Recorded
Clerk: 1.00 12/7/2001 at 8:36 am
EDF: 2.00 in Warranty Deed Book
Total: 6405.94
15X Pg 11

Name and Address of New Owner:	Name and Address of Person or Entity Responsible for Payment of Real Property Taxes:	Tax Map & Parcel No.:
W. G. Clark and wife, Alisha Clark, P.O. Box 1710, Athens, TN 37371-1710	Same	54G-K-4,5,6 63A-A/53M-29 62D-A-53M-26 53M-A-23 54P-B-20.06 63A-B/54P-25

TRUSTEE'S QUITCLAIM DEED

THIS DEED is executed to be effective as of the 30th day of November, 2001, from **R. GRANT DOBSON** as Grantor, in his capacity as Substitute Trustee, to W. G. Clark and wife, Aisha Clark as Grantee.

W I T N E S S E T H:

WHEREAS, on May 20, 1999, Athens Furniture Industries, Inc. executed a Deed of Trust, Assignment and Security Agreement, and Fixture Financing Statement (the "Deed of Trust") to the trustee named therein to secure the prompt payment of certain indebtedness held by and owing to Foothill Capital Corporation ("Lender"), said indebtedness being more particularly described in the Deed of Trust which is of record in the Register's Office of McMinn County, Tennessee in Trust Book 548, Page 315, to which reference is hereby made; and

WHEREAS, default was made in the payment of the aforesaid indebtedness and in the performance of the covenants described in the Deed of Trust, by reason of which the entire balance owing thereunder was declared to be due and payable; and

WHEREAS, pursuant to the terms of the Deed of Trust, R. Grant Dobson was appointed as Substitute Trustee as reflected in that certain Appointment of Substitute Trustee recorded in Trust Book 640, Page 522A, in the Register's Office of McMinn County, Tennessee; and

WHEREAS, by virtue of the power and authority vested in me as Substitute Trustee under the Deed of Trust, at the request of Lender, being the owner and holder of the indebtedness secured thereby, I, **R. GRANT DOBSON**, as Substitute Trustee, did on November 30, 2001 commencing at 10:30 A.M., pursuant to advertisement of sale published in The Daily Post Athenian in its editions of November 2, 2001, November 9, 2001, and November 16, 2001, offer for sale and sold at public auction to the highest and best bidder for cash at the front door of the McMinn County Courthouse in the City of Athens, Tennessee, in bar of the equities of redemption, statutory redemption, dower, homestead and all other exemptions of every kind, all of which are expressly waived in the Deed of Trust, the hereinafter described real estate, at which sale the Grantee became the highest and best bidder at and for the sum

of One Million Seven Hundred Six Thousand Two Hundred Fifty and 00 /100 ($ 1,706,250.00);

NOW, THEREFORE, I, **R. GRANT DOBSON,** Substitute Trustee, exercising the power and authority vested in me, and in bar of the equities of redemption, statutory redemption, dower and homestead, do hereby quitclaim to the Grantee, Grantee's successors and assigns, all my interest in the following described real estate located in the City of Athens, County of McMinn, State of Tennessee:

SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE

LESS AND EXCEPT that certain item of personal property located at said real property described as Irvington Moore 1.1 Million Board Foot Capacity Pre-Dryer built with front and rear motorized doors, two (2) banks of moisture removing fans, ceiling fans, controls and recording which item of personal property was previously sold and conveyed to W. G. Clark. This conveyance is subject to the right of such party to remove the described item of personal property.

For the source of Grantor's equitable interest in the property, reference is made to Book 548, Page 315, Register's Office of McMinn County, Tennessee. The legal description is unchanged from prior deed of record.

The Substitute Trustee does hereby quitclaim unto Grantee all of his right, title and interest in the said property and not further or otherwise and subject to any governmental zoning or subdivision ordinances or regulations and liens and encumbrances superior to the Deed of Trust, if any, of record in effect thereon and further subject to any unpaid taxes or assessments owing on the property. The property conveyed hereby is conveyed "As-Is" and without warranty of any kind, express or implied, as to the condition of such property and the improvements located thereon, including merchantability or fitness for a particular purpose.

The real property described herein is conveyed subject to the right of the State of Tennessee Department of Labor and Workforce Development to redeem the land as provided in T.C.A. §50-7-404(j)(3)(A). Attached hereto are copies of the notice provided to the State of Tennessee Department of Labor and Workforce Development and responses thereto, if any.

IN WITNESS WHEREOF, I, R. Grant Dobson, Substitute Trustee, have executed this instrument to be effective as of the date first above written.

R. GRANT DOBSON,
Substitute Trustee

STATE OF TENNESSEE)
COUNTY OF McMinn)

Personally appeared before me, Tanya D. English, Notary Public, **R. GRANT DOBSON,** Substitute Trustee, with whom I am personally acquainted, and who acknowledged that he executed the within instrument for the purposes therein contained.

WITNESS my hand, at office, this 30th of November, 2001.

Tanya D. English
Notary Public
My Commission Expires: MY COMMISSION EXPIRES MAY 7, 2003

NOTARY PUBLIC

STATE OF TENNESSEE)
COUNTY OF McMinn)

I hereby swear or affirm that, to the best of my knowledge, information and belief, the actual consideration for this transfer is $ 1,706,250.00 .

AFFIANT

Sworn to and subscribed before me this 30th day of November, 2001.

Notary Public
My Commission Expires: EXPIRES MAY 7, 2003

MY COMMISSION

EXHIBIT "A"

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, the same being Tract A (West side of North Jackson Street); Tract B (East side of North Jackson Street) and Tract C (Good House Tract), all of which are more particularly described as follows, to-wit:

TRACT A: WEST SIDE OF NORTH JACKSON STREET:

BEGINNING at an iron pin in the West line of North Jackson Street at a common corner with Hammer Supply Company; thence South 53 degrees 00 minutes West, 196 feet with Hammer Supply Company passing 6 inches to the East of Hammer Supply Warehouse to an iron pin in the North line of the railroad siding; thence South 38 degrees 30 minutes East, 285 feet along the North line of the railroad siding to the West side of Georgia Avenue near the Georgia Avenue crossing of the southern Railway; thence 80 feet along the North right-of-way line of Georgia Avenue along a curve turning clockwise on a radius of 110 feet to a point; thence south 57 degrees 30 minutes East, 72 feet along the North line of Georgia Avenue to a point; thence North 62 degrees East, 30 feet along the street connecting Georgia Avenue with North Jackson Street to the West line of North Jackson Street; thence North 20 degrees West, 320 feet along the West line of North Jackson Street to a point; thence North 37 degrees West, 118 feet with North Jackson Street to the point of **BEGINNING.**

TRACT B: EAST SIDE OF NORTH JACKSON STREET:

BEGINNING at the intersection of the East line of North Jackson Street with the South lien of Sherwood Avenue; thence South 20 degrees East, 460 feet along the East line of North Jackson Street to a concrete monument marking the West corner of the City of Athens new municipal building lot; thence North 69 degrees 29 minutes East, 689.3 feet with the municipal building lot to a concrete monument in the West line of Knoxville Avenue; thence North 15 degrees East, 382 feet along the West line of Knoxville Avenue to the South side of a 15 foot unopened alley; thence North 86 degrees 45 minutes West 630 feet along the South line of said alley to the East line of Sherwood Avenue; thence South 50 degrees West, 370 feet along the West line of Sherwood Avenue to the point of **BEGINNING.**

TRACT C: GOOD HOUSE TRACT:

THE SAME BEING the West half of Lot No. Ten (10) and all of Lots Nos. Eleven (11), Twelve (12) and Thirteen (13) according to the Athens

Mining and Manufacturing Company plat of North Athens as shown by the plat of record in Trust Book 2, page 313, in the Register's Office of McMinn County, Tennessee; said lot being improved with two dwelling houses fronting on the South side of Sherwood Avenue, and being more particularly described as follows, to-wit:

BEGINNING at the West corner of Lot No 13 at the intersection of the South line of Sherwood Avenue with the North line of an Unopened alley; thence North 50 degrees East, 131 feet along the Sherwood Avenue to a point; thence North 79 degrees East, 138 feet to an iron pin; thence South 11 degrees East, 125 feet to the North line of an unopened alley; thence North 86 degrees 45 minutes West, 264 feet along the North line of said alley to the point of **BEGINNING**.

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-2, Pages 476-478.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374.

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee:

BEGINNING at the Southwest corner of property now owned by the Athens Industrial Development Company (now Athens Bed Company) and running with the line of Athens Industrial Development Company (Athens Bed Company) in a Northerly direction a distance of 230 feet to a corner; thence in a Westerly direction a distance of 180 feet to a corner; thence in a Southerly direction a distance of 230 feet to a corner in a hedge near southern Railroad; thence in an Eastwardly direction to the **BEGINNING** corner, making a lot fronting 180 feet near the line of Southern Railroad and extending back between parallel lines a distance of 230 feet.

0.95 acres

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-2, Pages 481-484, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374.

TRACT ONE:

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of

Athens, the same being the tract described as "Tract A" in the Deed from the J. F. McMillan Trust, Howard Hay, Trustee, bearing date of March 22nd, 1972, to Athens Bed Company, Incorporated, a Tennessee Corporation with its principal office in Athens, and recorded in Deed Book 7-A, at pages 376-379, Register's office, McMinn County, Tennessee, to which reference is hereby made, and being more particularly described as follows, to-wit:

"A" Deed dated May, 1948, from Cherokee Development Company, a partnership composed of Jones Beene, III, and Joseph T. Frye, Jr., to H. F. McMillan recorded in Deed Book 4-H, at Page 196, and being more particularly described as follows, to-wit:

BEGINNING at an iron stake at a corner of the property here conveyed and the property of Hoyt Milton; thence South 89 degrees West along the line of the southern Railroad a distance of 380 feet to an iron stake; thence North 330 feet to an iron stake on a road bisecting Cherokee Development property; thence with said road 393.52 feet to an iron stake and corner with Hoyt Milton; thence South with the Milton line to the **BEGINNING** corner.

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Royal Crown Companies, Inc., same dated March 20, 1987 of record in Deed Book 10-Z, Pages 479-480, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374

TRACT TWO:

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, the same being the tract described as "Tract B" in the deed from H. F. McMillan Trust, Howard Hay, Trustee, bearing date of March 22, 1972, to Athens Bed Company, Incorporated, a Tennessee Corporation with its principal office in Athens, and recorded in Deed Book 7-A, at pages 376-379, in the Register's Office, McMinn County, Tennessee, to which reference is hereby made, and being more particularly described as follows, to-wit:

"B" Deed dated November 16, 1948, from Cherokee Development Company, a partnership composed of Joseph T. Frye, Jr., and Jones C. Beene, III, to H. F. McMillan recorded in Deed Book 4-H, pages 591-592, being more particularly described as follows, to-wit:

BEGINNING at a point where the lands heretofore conveyed by the grantors to the grantees joins the property line of the Southern Railroad Company said point being 380 feet Southwest of the Hoyt Milton line and running South 89 degrees West along the line of the Southern Railroad a distance of 130 feet to an iron stake; thence North 330 feet to an iron stake on a road bisecting Cherokee Development property; thence with said road 130 feet to an iron stake at a point where the property herein conveyed joins the property heretofore conveyed by the grantors of the grantee herein; thence South with the said property line to **BEGINNING** corner, a distance of 330 feet.

6.98

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Royal crown Companies, Inc., same dated Marc 20, 1987 of record in Deed Book 10-Z, Pages 483-484, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, and being more particularly described as follows, to-wit:

FIRST TRACT:

BEGINNING at an iron pin, said pin being the Northwest corner of the described tract, a corner common with William P. Willson and being South 28 degrees 40' East, 67.4 feet from the right-of-way of Old Riceville Road; thence South 89 degrees 22' East, 96.5 feet to a concrete marker; thence South 89 degrees 53' East, 607.7 feet to a point in the right-of-way of Centennial Street; thence with Centennial Street, South 01 degrees 02' West, 301.6 feet to a point; thence leaving the right-of-way of Centennial Street, North 89 degrees 34' West, 254.4 feet to a fence post; thence North 85 degrees 08' West 381.5 feet to an iron pin; thence North 00 degrees 26' East, 148.4 feet to an iron pin; thence North 28 degrees 40' West, 136.2 feet to the point of **BEGINNING**, according to a plat prepared by Morgan Watkins Engineering Co., dated February 1, 1977, drawing #77018.

SECOND TRACT:

BEGINNING at a point in the right-of-way of Old Riceville Road, a corner common with William P. Willson; thence South 00 degrees 26' West, 83.5 feet to an iron pin, a corner common with William P. Willson and Tract No. 1

of the same plat; thence North 28 degrees 40' West, 67.4 feet to a point in the right-of-way of Old Riceville Road; thence with the right-of-way of Old Riceville Road, North 53 degrees 31' East, 41.0 feet to the point of **BEGINNING**, according to the plat prepared by Morgan Watkins Engineering Company, dated February 1, 1977, drawing #77018.

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-Z, Pages 485-486, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, and being more particularly described as follows, to-wit:

BEGINNING at the Northeast corner of the tract here conveyed, the same point also the Southwest point of intersection of the Old Riceville Road and Centennial Avenue; thence from said point, South 16 degrees 55' East, 188.4 feet with Centennial Avenue and continuing South 8 degrees 52' East, 319.2 feet to an iron pin; thence North 89 degrees 53' West, 607.7 feet to a point; thence North 89 degrees 22' West, 96.5 feet; thence North 00 degrees 26' East, 77.5 feet to the Southeast right-of-way of the Old Riceville Road; thence North 54 degrees 45' East, 233.3 feet; thence North 50 degrees 1' East, 263.8 feet; thence North 61 degrees 42' East, 235 feet to the point of **BEGINNING**.

ACCORDING to a survey of Morgan Watkins Engineer, dated November 9, 1971, and recorded in Plat Book 4, Page 14, Register's Office, McMinn County, Tennessee.

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-Z, Pages 487-488, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, being bounded on the North by Frye Street; on the West by North Matlock Avenue; on the South by Athens Bed Company and Elder,

and being more particularly described as follows, to-wit:

BEGINNING at a nail & cap in the southwest corner of the within described property, at a common corner with Athens Bed Company, and in the East line of North Matlock Avenue; from said point of beginning, North 00 degrees 01' East, 133.4 feet along the East line of North Matlock Avenue to an iron pin; thence on a curve to the right turning on a radius of 35.0 feet, the tangent of which is 34.9 feet, to a point where the East line of North Matlock Avenue turns into the south line of Frye Street; thence along the south line of Frye Street, North 89 degrees 51' East, 118.7 feet to a point; thence on a curve to the right turning on a radius of 475.0 feet, the tangent of which is 163.5 feet, to a point; thence South 53 degrees 56' East, 25.7 feet to a point; thence South 82 degrees 13' West, 459.4 feet along the common dividing line with Elder, Edler and Athens Bed Company to the point of **BEGINNING**, according to the survey of Morgan Watkins Engineering Company, Inc., Paul R. Lingerfelt, Surveyor, bearing date of November 29th, 1976, being drawing #76230-1.

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-Z, Pages 492-493, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, the same being Tract A (Office and Parking lot), Tract B (Manufacturing Buildings and Warehouses), Tract C (Ferris Warehouse) and Tract D (Frye Street 8.9 acre tract), all of which are more particularly described as follows, to-wit:

TRACT A: OFFICE AND PARKING LOT:

The same being a lot lying on the East side of Matlock Avenue and just North of the Southern Railway Main Track, and being more particularly described as follows, to-wit:

BEGINNING at a point which is 33 feet from the centerline of the southern Railway Main Track and in the East line of Matlock Avenue; from said point of beginning, North 01 degrees 59' East, 452.2 feet along the East line of Matlock Avenue to an iron pin; thence North 83 degrees 40' East 292.6 feet with the Fisher Development Corporation to a concrete monument; thence South 23 degrees 29' West,

222 feet to a point in the North line of a road at a corner with Elder; thence South 86 degrees 37' West 68.8 feet along the North line of said road to a concrete monument; thence South 07 degrees 33' East 255.9 feet along the West line of a road separating this property from the R. T. Bradford to an iron pin which is 33 feet North of the centerline of the main track of the Southern Railway; thence South 82 degrees 51' West, 184.4 feet along a line 33 feet from and parallel to the main track of the Southern Railway to the point of **BEGINNING**.

The same being a lot lying on the West side of Matlock Avenue, and being more particularly described as follows, to-wit:

TRACT B:

BEGINNING at the Southwest corner at the intersection of Matlock Avenue and Frye Street; **FROM SAID POINT OF BEGINNING**, South 00 degrees 30' East, 615 feet along the West line of Matlock Avenue to an iron pin in the North line of the Southern Railway Spur Track; thence South 85 degrees West, 197 feet with the Southern Railway to an iron pin; thence South 89 degrees West 56 feet to the Southeast corner of Frye; thence North 01 degrees West, 230 feet to an iron pin; thence South 89 degrees West, 180 feet with Frye to an iron pin; thence South 01 degrees East, 320 feet to an iron pin; thence South 89 degrees West, 380 feet with the Hammond Cemetery to an iron pin; thence North 01 degrees West, 330 feet along the East line of Centennial Avenue to a point; thence North 89 degrees East, 6.5 feet to a point in the East line of Centennial Avenue; thence North 01 degrees West, 302 feet along the East line of Centennial Avenue to its intersection with the south line of Frye Street; thence North 89 degrees East, 856 feet to the point of **BEGINNING**.

TRACT C: FERRIS WAREHOUSE:

The same being a lot bounded on the South by Hammond Cemetery; on the East by Centennial Avenue; on the West and North by property owned by the City of Athens, and being more particularly described as follows, to-wit:

BEGINNING at a point in the West line of Centennial Avenue in the North boundary of the Hammond Cemetery; thence South 89 degrees West, 236.5 feet with Hammond Cemetery to an iron pin; thence North 01 degrees West, 330 feet with property of the City of Athens to an iron pin; thence North 89 degrees East, 236.5 feet with property of the City of Athens to the West line of Centennial Avenue; thence South 01 degrees East 330 feet along the West

line of Centennial Avenue to the point of **BEGINNING.**

TRACT D: FRYE STREET TRACT:

The same being a lot lying on the North side of Frye Street and the West side of Matlock Avenue, and being more particularly described as follows, to-wit:

BEGINNING at a fence post at the intersection of fences at the Northwest corner of the intersection of Frye Street and Matlock Avenue; **FROM SAID POINT OF BEGINNING,** North 89 degrees 38' West, 318.9 feet along the North line of Frye Street to an iron pin; thence North 88 degrees 00' West, 473.1 feet along the North line of Frye Street to an iron pin at the Northeast corner of the intersection of Frye Street and Centennial Avenue; thence North 09 degrees 02' West, 100 feet along the East line of Centennial Avenue to an iron pin at the South corner of the H. F. McMillan Trust property occupied by Hay Oil Company; thence North 65 degrees 17' East, 352 feet with Hay Oil Company to an iron pin; thence North 15 degrees 39' East, 372 feet with Hay Oil Company to an iron pin in the south line of the Old Riceville Road; thence North 65 degrees 32' East 31.0 feet along the south line of the Old Riceville road to an iron pin; thence South 84 degrees 09' East, 586.4 feet with Wilson along a line marked by a fence to an iron pin in the West line of Matlock Avenue; thence South 02 degrees 52' West, 599 feet along the West line of Matlock Avenue to the point of **BEGINNING.**

BEING the same property conveyed to New Athens, Inc., by Warranty Deed from Athens Furniture, Inc., same dated March 20, 1987 of record in Deed Book 10-Z, Pages 489-491, Register's Office, McMinn County, Tennessee.

Reference is also made to Certificate of Merger to Athens Furniture Industries, Inc., of record in Deed Book 12-D, Pages 372-374.

SUBJECT TO:

1. All assessments and taxes due in 1999, and thereafter.

2. As to Tax Map 63A-B/54P-25 only: subject to Easement for Natural Gas Line from Athens Bed Company, Inc. to Athens Utilities Board of record in Misc. Book 7, Page 515-516, McMinn County, Tennessee records.

3. Map 54G Group K Parcel 4 is subject to an unopened alley and right-of-way of Southern Railroad.

4. Right-of-Way of Southern Railroad as to Tax Map 54G-4, 5 and 6 and 63A-B/54P-25 Tracts A and B.

The property address is believed to be:
1241 Frye Street, Athens, Tennessee 37303 and
909 N. Jackson Street, Athens, Tennessee 37303 and
8 Frye Street, Athens, Tennessee 37303.

STATE OF TENNESSEE
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
EMPLOYMENT SECURITY DIVISION
Legal Office
William R. Snodgrass Bldg., 26th Floor
312 8th Avenue North
Nashville, Tennessee 37243-0100
(615) 741-3170
(615) 532-7386 FAX

November 5, 2001

Mr. R. Grant Dobson
Miller & Martin LLP
Suite 1000 Volunteer Building
832 Georgia Avenue
Chattanooga, TN 37402-2289

RE: Property of Athens Furniture Industries, Inc.
TDLWD Acct. #377-654 - TDLWD Lien #1-4567 (McMinn County)
Your File #9793-100
Notice of Trustee's Sale

Dear Mr. Dobson:

Your letter of November 1, 2001, is acknowledged, along with the attendant Notice of Trustee's Sale, and this will respectfully advise:

1. That said Notice is accepted as being timely and adequate; and,

2. That the amount of delinquent unemployment taxes, penalty and interest computed to date of sale is $10,277.77.

It is requested that you further advise us after the sale regarding: (i) actual proceeds of sale; (ii) net mortgage balance owed to the foreclosing creditor; (iii) sale costs; (iv) other liens, and this Agency's apparent position of priority with respect to same; and, (v) your proposed distribution of sale proceeds.

Should you have further questions regarding this matter, please let us know.

Sincerely,

Michael D. Fort
Counsel to Commissioner

MDF:PDR

cc: James A. Matheney, Central Office

State of Tennessee
Department of Labor and Workforce Development
Nashville, Tennessee 37246-3546
615-741-6100

NOTICE OF TAX LIEN

Employer: ATHENS FURNITURE INDUSTRIES
INC
P O BOX 929
ATHENS TN 37371

377-654 Account Number:
1-4567 Lien Number:
MCMINN COUNTY
PAGE 1

Pursuant to the provisions of T.C.A. §50-7-404 et. seq., a lien exits in favor of the State of Tennessee Department of Labor and Workforce Development upon all property and all rights, title and interest in property acquired either prior to or subsequent to the filing of this notice, belonging to the above named employer. Notice is hereby given that there have been assessed unemployment taxes, job skills fees, costs, and/or penalty and interest against the said employer, which after demand for payment thereof remain unpaid. The amount of said unemployment taxes, job skills fees, costs, and/or penalty and interest, either previously accrued or to accrue in the future without payment, constitutes the amount of said lien.

Periods for which unemployment taxes, job skills fees, costs, and/or penalty and interest have been assessed, and the amounts thereof, are as follows:

Q / YR	TAX DUE	INTEREST THROUGH		PENALTY DUE	FILING FEE
2/2001	$8,411.63	08/31/2001	$126.17		$12.00
JOB SKILLS FEE					
2/2001	$1,261.74	08/31/2001	$18.93		
				Rec #: 26814 Rec'd: 0.00 State: 0.00 Clerk: 0.00 EDP: 0.00 Total: 0.00	[illegible] McMinn County Instrument 26814 Book [illegible] Recorded [illegible]/2001 at [illegible] in Lien Book 15 Pg 743
				TOTAL:	$9,830.47

Witness my hand at Nashville, Tennessee, on the 21ST day of AUGUST 2001

This instrument was prepared by the State of Tennessee Department of Labor and Workforce Development.

MICHAEL E. MAGILL
Commissioner of Labor and Workforce Development

By [signature]
Delegate of Commissioner
JAMES A. MATHENEY

FOR REGISTER USE ONLY - PRINT OR STAMP	
BOOK NO:	DATE:
PAGE NO:	TIME:
REGISTER:	BY:

REGISTER COPY

MILLER & MARTIN LLP
ATTORNEYS AT LAW
SUITE 1000 VOLUNTEER BUILDING
832 GEORGIA AVENUE
CHATTANOOGA, TENNESSEE 37402-2289
423/756-6600
FAX 423/785-8480

ATLANTA OFFICE:
1275 PEACHTREE STREET, N.E.
SEVENTH FLOOR
ATLANTA, GEORGIA 30309-3576
404/962-6100
FAX 404/962-6300

WRITER'S DIRECT NUMBER:
423/785-8334

NASHVILLE OFFICE:
1200 FIRST UNION TOWER
150 4th AVENUE, NORTH
NASHVILLE, TENNESSEE 37219-2433
615/244-9270
FAX 615/256-8197

R. GRANT DOBSON
CHATTANOOGA OFFICE

E-MAIL ADDRESS:
gdobson@millermartin.com

November 1, 2001

VIA CERTIFIED MAIL -
RETURN RECEIPT REQUESTED
AND VIA FIRST CLASS MAIL
AND VIA HAND DELIVERY

Mr. Mike Fort
State of Tennessee
Department of Labor and
Workforce Development
312 Eighth Avenue, North
26th Floor
Nashville, Tennessee 37243-0100

Re: **Nonjudicial Foreclosure Sale**
Property Address: 1241 Frye Street, Athens, Tennessee 37303; 909 N. Jackson Street, Athens, Tennessee 37303; and 8 Frye Street, Athens, Tennessee, 37303
Account No.: 377-654 (Our File No. 9793-100)

Dear Mr. Fort:

We represent Foothill Capital Corporation. We are writing to advise you that, upon instructions from our client, we will commence foreclosure proceedings immediately on the property described in the attached Trustee's Sale notice. The Trustee's Sale is scheduled for November 30, 2001.

1. Name and Address of Person Submitting Notice: R. Grant Dobson, Miller & Martin LLP, 832 Georgia Avenue, Suite 1000, Volunteer State Life Building, Chattanooga, Tennessee, 37402-2289.

2. Notice of State Tax Lien: A copy of the Notice of Tax Lien, State of Tennessee, Department of Labor and Workforce

Development, Lien Number 1-4567, of record in Lien Book 15, Page 743, in the Register's Office of McMinn County, Tennessee, is attached and contains the name and address of the taxpayer, and date and place the Notice of Tax Lien was filed.

3. Address of Real Property: 1241 Frye Street, Athens, Tennessee, 37303; 909 N. Jackson Street, Athens, Tennessee, 37303; and 8 Frye Street, Athens, Tennessee, 37303.

4. Sale Date, Time, Place and Terms: The date, time, place and terms of the sale of the property are contained in the enclosed Trustee's Sale Notice.

5. Description of Debt and Sale Expenses: As of October 31, 2001, the approximate amount of the principle obligation secured by the Deed of Trust being foreclosed upon, including interest was $5,118,600.00. The per diem rate of interest for every day after that date is $1,400.00. The foreclosure expenses including advertising expenses and legal expenses chargeable against the sale proceeds are estimated to be approximately $6,500.00.

6. Instrument Being Foreclosed: The instrument being foreclosed is a Deed of Trust, Assignment and Security Agreement, and Fixture Financing Statement (the "Deed of Trust") of record in Trust Book 548, Page 315, Register's Office of McMinn County, Tennessee, securing indebtedness evidenced by that certain Loan and Security Agreement of even date therewith which indebtedness is more particularly described in the Deed of Trust. A copy of the Deed of Trust is enclosed.

7. Please acknowledge receipt of this notice on the enclosed copy of this letter and return it to my attention in the enclosed envelope.

If you require additional information with respect to this matter, please feel free to contact me.

Sincerely,

R. Grant Dobson

RGD:tm
Enclosures

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE FOREGOING NOTICE AND THAT IT COMPLIES WITH THE REQUIREMENTS OF T.C.A. §50-7-404(j)(B) AND FURTHER ACKNOWLEDGES THE STATE OF TENNESSEE DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT'S CONSENT TO THE SALE OF THE SUBJECT PROPERTY FREE OF THE LIEN REFERENCED HEREIN.

_____

Print Name:_____

Date:_____

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE FOREGOING NOTICE AND THAT IT COMPLIES WITH THE REQUIREMENTS OF T.C.A. §50-7-404(j)(B) AND FURTHER ACKNOWLEDGES THE STATE OF TENNESSEE DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT'S CONSENT TO THE SALE OF THE SUBJECT PROPERTY FREE OF THE LIEN REFERENCED HEREIN.

_____

Print Name:_____

Date:_____

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, TN 37303.

Map Pick up

PROPERTY TRANSFER NOTED
Date 9-28-88
No. 88-1493 CURTIS FOSTER
McMinn County Property Assessor

481

I Certify that State Tax is Paid
State Tax $39.60
Certificate Fee .50
Total Tax $40.10
Virginia Fisher Snyder
Register of Deeds

WARRANTY DEED

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ATHENS FURNITURE, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the first part, and NEW ATHENS, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit:

TUATED in the First Civil District of McMinn County, Tennessee, and

BEGINNING at the Southwest corner of property now owned by the Athens Industrial Development Company (now Athens Bed Company) and running with the line of Athens Industrial Development Company (Athens Bed Company) in a Northerly direction a distance of 230 feet to a corner; thence in a Westerly direction a distance of 180 feet to a corner; thence in a Southerly direction a distance of 230 feet to a corner in a hedge near Southern Railroad; thence in an Eastwardly direction to the BEGINNING corner, making a lot fronting 180 feet near the line of Southern Railroad and extending back between parallel lines a distance of 230 feet.

AND BEING the same property conveyed to Athens Home Decor, Inc., a Delaware Corporation by Warranty Deed dated September 20th, 1975, from Joseph T. Frye and wife, Dorothy W. Frye, of record in Deed Book 7-R, pages 437-38, Register's Office, McMinn County, TN, to which reference is hereby made.

Athens Home Decor, Inc. was renamed Athens Furniture, Inc. in 1976.

FORWARD TAX STATEMENT TO:
Athens Furniture, Inc.
(Formerly named New Athens, Inc.)
Owner (X) Mortgagee (_)
P.O. Box 929
Athens, TN 37303
Address

I/We, hereby swear or affirm that the actual consideration for this transfer or value of the property transferred, whichever is greater is $12,000.00 which amount is equal to or greater than the amount which the property transferred would command at a fair voluntary sale.

E. R. Mason
Affiant

Subscribed and sworn to before me this the 28 day of Sept 1988

Cindy Burke Ck

481

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors does hereby covenant with the said party of the second part, its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

ATHENS FURNITURE, INC.

BY: _____
Jack Coppersmith
Sr. Vice President

STATE OF FLORIDA |

COUNTY OF DATE |

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith, with whom I am personally acquainted, and who upon oath acknowledged himself to be the VICE PRESIDENT of ATHENS FURNITURE, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

Cynthia A. Mills
NOTARY PUBLIC

My Commission Expires:
Notary Public, State of Florida
My Commission Expires July 14, 1991
Bonded Thru Troy Fain - Insurance Inc.

STATE OF TENNESSEE
McMINN COUNTY
10 88
Certified
In Deed Bk 137 P 9-28
10-Z 481-482 Z
Kathy Snyder

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, TN 37303.

PERTY TRANSFER NOTED
Date 3-28-88
No. 88-1492 CURTIS FOSTER
McMinn County Property Assessor

I Certify that State Tax is Paid
State Tax $ 33.00
Certificate Fee .50
Total Paid $ 33.50
Virginia Fisher Snyder
Register of Deeds

WARRANTY DEED

map pick up

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ROYAL CROWN COMPANIES, INC., a Delaware Corporation, of Dade County, in the State of Florida, hereinafter referred to as party of the first part, and NEW ATHENS, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit

YING AND BEING situated in the First Civil District of McMinn County, ennessee, and within the Corporate Limits of the City of Athens, the same being the tract described as "Tract B" in the Deed from H. F. McMillan Trust, Howard Hay, Trustee, bearing date of March 22nd, 1972, to Athens Bed Company, Incorporated, a Tennessee Corporation with its principal office in Athens, and recorded in Deed Book 7-A, at pages 376-379, in the Register's Office, McMinn County, Tennessee, to which reference is hereby made, and being more particularly described as follows, to-wit:

"(B) Deed dated November 16, 1948, from Cherokee Development Company, a partnership composed of Joseph T. Frye, Jr. and Jones C. Beene, III, to H.F. McMillan recorded in Deed Book 4-H, pages 591-592, and being more particularly described as follows, to-wit:

BEGINNING at a point where the lands heretofore conveyed by the grantors to the grantees joins the property line of the Southern Railroad Company said point being 380 feet Southwest of the Hoyt Milton line and running South 89 degrees West along the line of the Southern Railroad a distance of 130 feet to an iron stake; thence North 330 feet to an iron stake on a road bisecting Cherokee Development property; thence with said road 130 feet to an iron stake at a point where the property herein conveyed joins the property hereto fore conveyed by the grantors to the grantee herein; thence South with the said property line to BEGINNING corner, a distance of 330 feet; containing one (1) acre, more or less."

FORWARD TAX STATEMENT TO:
Athens Furniture, Inc.
(formerly named New Athens, Inc.)
Owner (X) Mortgagee ( )
P.O. Box 929
Athens, TN 37303
Address

I/We, hereby swear or affirm that the actual consideration for this transfer or value of the property transferred, whichever is greater is $10,000.00 which amount is equal to or greater than the amount which the property transferred would command at a fair voluntary sale.

C. R. Mason
Affiant

Subscribed and sworn to before me this the 31 day of Sept 19 88. Cindy Burkett
Notary Public

Athens Bed Co., Inc., a Tennessee Corporation (being the same corporation referred to above as Athens Bed Company, Incorporated), was merged into Royal Crown Cola Co. in 1972. In 1978, Royal Crown Cola Co. was renamed Royal Crown Companies, Inc.

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

ROYAL CROWN COMPANIES, INC.

BY: [signature]

Jack Coppersmith
Sr. Vice President

STATE OF FLORIDA)

COUNTY OF DADE)

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith, with whom I am personally acquainted, and who upon oath acknowledged himself to be the Sr. Vice President of ROYAL CROWN COMPANIES, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

[signature: Cynthia A. Mills]
NOTARY PUBLIC

My Commission Expires:
Notary Public, State of Florida
My Commission Expires July 14, 1991
Bonded Thru Troy Fain - Insurance Inc.

STATE OF TENNESSEE, McMINN COUNTY 1:38 O'Clock P M 9-28 1988. This instrument with certificate recorded in Deed Book 10-Z 483-484
[signature: Kathy Snyder] REGISTER

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, Tennessee 37303.

I Certify that State Tax is Paid
State Tax $3860.60
.50
3861.10
Virginia Fisher Snyder
Register of Deeds

PROPERTY TRANSFER NOTED
Date 9-28-88
No. 88-1491 CURTIS FOSTER
McMinn County Property Assessor

Quickup

WARRANTY DEED

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ATHENS FURNITURE, INC., a Corporation duly authorized to do business in Tennessee, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the first part, and NEW ATHENS, INC., A DELAWARE CORPORATION, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit:

ITUATED in the First Civil District of McMinn County, Tennessee, within ne Corporate Limits of the City of Athens, Tennessee, and being more particularly described as follows, to-wit:

FIRST TRACT:
BEGINNING at an iron pin, said pin being the Northwest corner of the described tract, a corner common with William P. Willson and being South 28° 40' East, 67.4 feet from the right-of-way of Old Riceville Road; thence South 89° 22' East, 96.5 feet to a concrete marker; thence South 89° 53' East, 607.7 feet to a point in the right-of-way of Centennial Street; thence with Centennial Street, South 01° 02' West, 301.6 feet to a point; thence leaving the right-of-way of Centennial Street, North 89° 34' West, 254.4 feet to a fence post; thence North 85° 08' West, 381.5 feet to an iron pin; thence North 00° 26' East, 148.4 feet to an iron pin; thence North 28° 40' West, 136.2 feet to the point of BEGINNING, containing 4.33 acres, according to a plat prepared by Morgan Watkins Engineering Co., dated February 1, 1977, drawing #77018.

SECOND TRACT:
BEGINNING at a point in the right-of-way of Old Riceville Road, a corner common with William P. Willson; thence South 00° 26' West, 83.5 feet to an iron pin, a corner common with William P. Willson and Tract No. 1 of the same plat; thence North 28° 40' West, 67.4 feet to a point in the right-of-way of Old Riceville Road; thence with the right-of-way of Old Riceville Road, North 53° 30' East, 41.0 feet to the point of BEGINNING, containing 0.03 acre, according to the plat prepared by Morgan Watkins Engineering Company, dated February 1, 1977, drawing #77018. (Copy of plat attached hereto as Exhibit "A".)

FORWARD TAX STATEMENT TO:
Athens Furniture, Inc.
(formerly named New Athens, Inc.)
Owner (X) Mortgagee (_)
P.O. Box 929
Athens, TN 37303
Address

I/We, hereby swear or affirm that the actual consideration for this transfer or value of the property transferred, whichever is greater is $1,169,900.00 which amount is equal to or greater than the amount which the property transferred would command at a fair voluntary sale.

E. R. Mason
Affiant

Subscribed and sworn to before me this the 28 day of Sept 1988
Cindy Burke N.

AND BEING the same property conveyed to Athens Furniture, Inc., a corporation duly authorized to do business in Tennessee, by Warranty Deed dated February 10th, 1977, from the City of Athens, TN, a Municipal Corporation in McMinn County, TN, of record in Deed Book 8-A, at pages 47-49, Register's Office, McMinn County, TN, to which reference is hereby made.

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors does hereby covenant with the said party of the second part, its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

STATE OF TENNESSEE 1:39 o'Clock P M. 9-28 [illegible] and duly recorded in Deed 10-2 485-486 Kathy Snipes

ATHENS FURNITURE, INC.

BY: Jack Coppersmith Sr. Vice President

(title)

STATE OF FLORIDA §

COUNTY OF DADE §

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith with whom I am personally acquainted, and who upon oath acknowledged himself to be the Sr. Vice President of ---------- ATHENS FURNITURE, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

Cynthia A. Mills
NOTARY PUBLIC

My Commission Expires: Notary Public, State of Florida My Commission Expires July 14, 1991 Bonded Thru Troy Fain-Insurance Inc.

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, Tennessee 37303.

PROPERTY TRANSFER NOTE
Date 9-28-88
No. 88-1490 CURTIS FOSTER
McMinn County Property Assessor

Pick up

State Tax is Paid	
[illegible]	$ 75.90
Clerk's Fee	.50
Total Paid	$ 76.40

Virginia Fisher Snyder
Register of Deeds

WARRANTY DEED

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ATHENS FURNITURE, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the first part, and NEW ATHENS, INC., A DELAWARE CORPORATION, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit:

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, and being more particularly described as follows, to-wit:

BEGINNING at the Northeast corner of the tract here conveyed, the same point also the Southwest point of intersection of the Old Riceville Road and Centennial Avenue; thence from said point, South 16° 55' East, 188.4 feet with Centennial Avenue and continuing South 8° 52' East, 319.2 feet to an iron pin; thence North 89° 53' West, 607.7 feet to a point; thence North 89° 22' West, 96.5 feet; thence North 00° 26' East, 77.5 feet to the Southeast right-of-way of the Old Riceville Road; thence North 54° 45' East, 233.3 feet; thence North 50° 1' East, 263.8 feet; thence North 61° 42' East, 235 feet to the point of BEGINNING, containing 4.8 acres.

According to a survey of Morgan Watkins, Engineer, dated November 9, 1971, and of record in Plat Book 4, page 14, in the Register's Office, McMinn County, Tennessee, to which reference is hereby made.

AND BEING the same property conveyed to Athens Furniture, Inc., a Delaware Corporation with its principal office and place of business in Athens, McMinn County, Tennessee, by Warranty Deed dated May 9th, 1977, from William P. Willson and wife, Mary Emert Willson, of record in Deed Book 8-B, at pages 449-450, in the Register's Office, McMinn County, TN, to which reference is hereby made.

FORWARD TAX STATEMENT TO:
Athens Furniture, Inc.
(formerly named New Athens, Inc.)
Owner (X) Mortgagee ( )
P.O. Box 929
Athens, TN 37303
Address

I, or we, hereby swear or affirm that the actual consideration for this transfer or value of the property transferred, whichever is greater is $23,000.00 which [illegible] is equal to or greater than the amount which the property transferred would command at a fair [illegible]

[signature]
Affiant

Subscribed and sworn to before me this the 28 day of Sept 1988
[signature]

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors does hereby covenant with the said party of the second part, its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

STATE OF TENNESSEE 1:40 O'Clock P M. 9-28 1988 and duly recorded in Deed Book 10-Z Page 487-488 Kathy Snyder D. R.

ATHENS FURNITURE, INC.

BY: _____

Jack Coppersmith, Sr. Vice President
(title)

STATE OF FLORIDA §

COUNTY OF DADE §

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith with whom I am personally acquainted, and who upon oath acknowledged himself to be the Sr. Vice President of ---------- ATHENS FURNITURE, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

Cynthia A. Mills
NOTARY PUBLIC

My Commission Expires: Notary Public, State of Florida My Commission Expires July 14, 1991 Bonded Thru Troy Fain - Insurance Inc.

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, Tennessee 37303.

State Tax is Paid 5506.71
.50
Total Paid 5507.21
Virginia Fisher Snyder
Register of Deeds

PROPERTY TRANSFER NOTED
Date 9-28-88
No. 88-1485 CURTIS FOSTER
McMinn County Property Assessor

Pick up

WARRANTY DEED

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ATHENS FURNITURE, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the first part, and NEW ATHENS, INC., a Delaware Corporation, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit:

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, the same being Tract A (Office and Parking lot), Tract B (Manufacturing Buildings and Warehouses), Tract C (Ferris Warehouse) and Tract D (Frye Street 8.9 acre tract), all of which are more particularly described as follows, to-wit:

TRACT A: OFFICE AND PARKING LOT:
The same being a lot lying on the East side of Matlock Avenue and just North of the Southern Railway Main Track, and being more particularly described as follows, to-wit:

BEGINNING at a point which is 33 feet from the centerline of the Southern Railway Main Track and in the East line of Matlock Avenue; from said point of beginning, North 01° 59' East, 452.2 feet along the East line of Matlock Avenue to an iron pin; thence North 83° 40' East, 292.6 feet with the Fisher Development Corporation to a concrete monument; thence South 23° 29' West, 222 feet to a point in the North line of a road at a corner with Elder; thence South 86° 37' West, 68.8 feet along the North line of said road to a concrete monument; thence South 07° 33' East, 255.9 feet along the West line of a road separating this property from the R.T. Bradford to an iron pin which is 33 feet North of the centerline of the main track of the Suothern Railway; thence South 82° 51' West, 184.4 feet along a line 33 feet from and parallel to the main track of the Southern Railway to the point of BEGINNING.

FORWARD TAX STATEMENT TO:
Athens Furniture, Inc.
(formerly named New Athens, Inc.)
Owner (X) Mortgagee ( )
P.O. Box 929
Athens, TN 37303
Address

I, or we, hereby swear or affirm that the actual consideration for this transfer or value of the property transferred, whichever is greater is $1,468,900.00, which amount is equal to or greater than the amount which the property transferred would command at a fair and voluntary sale.
C. R. Mason
Affiant
Subscribed and sworn to before me this the 28 day of Sept 1988
Cindy [illegible] DR

TRACT B: MANUFACTURING BUILDINGS AND WAREHOUSES:
The same being a lot lying on the West side of Matlock Avenue, and being more particularly described as follows, to-wit:

BEGINNING at the Southwest corner at the intersection of Matlock Avenue and Frye Street; FROM SAID POINT OF BEGINNING, South 00° 30' East, 615 feet along the West line of Matlock Avenue to an iron pin in the North line of the Southern Railway Spur Track; thence South 85° West, 197 feet with the Southern Railway to an iron pin; thence South 89° West, 56 feet to the Southeast corner of Frye; thence North 01° West, 230 feet to an iron pin; thence South 89° West, 180 feet with Frye to an iron pin; thence South 01° East, 230 feet to an iron pin; thence South 89° West, 380 feet with the Hammond Cemetery to an iron pin; thence North 01° West, 330 feet along the East line of Centennial Avenue to a point; thence North 89° East, 6.5 feet to a point in the East line of Centennial Avenue; thence North 01° West, 302 feet along the East line of Centennial Avenue to its intersection with the South line of Frye Street; thence North 89° East, 856 feet to the point of BEGINNING.

TRACT C: FERRIS WAREHOUSE:
The same being a lot bounded on the South by Hammond Cemetery; on the East by Centennial Avenue; on the West and North by property owned by the City of Athens, and being more particularly described as follows, to-wit:

1.79 acres
BEGINNING at a point in the West line of Centennial Avenue in the North boundary of the Hammond Cemetery; thence South 89° West, 236.5 feet with Hammond Cemetery to an iron pin; thence North 01° West, 330 feet with property of the City of Athens to an iron pin; thence North 89° East, 236.5 feet with property of the City of Athens to the West line of Centennial Avenue; thence South 01° East, 330 feet along the West line of Cenetennial Avenue to the point of BEGINNING.

TRACT D: FRYE STREET 8.9 ACRE TRACT:
The same being a lot lying on the North side of Frye Street and the West side of Matlock Avenue, and being more particularly described as follows, to-wit:

BEGINNING at a fence post at the intersection of fences at the Northwest corner of the intersection of Frye Street and Matlock Avenue; FROM SAID POINT OF BEGINNING, North 89° 38' West, 318.9 feet along the North line of Frye Street to an iron pin; thence North 88° 00' West, 473.1 feet along the North line of Frye Street to an iron pin at the Northeast corner of the intersection of Frye Street and Centennial Avenue; thence North 09° 02' West, 100 feet along the East line of Centennial Avenue to an iron pin at the South corner of the H.F. McMillan Trust property occupied by Hay Oil Company; thence North 65° 17' East, 352 feet with Hay Oil Company to an iron pin; thence North 15° 39' wEst, 372 feet with Hay Oil Company to an iron pin in the south line of the Old Riceville Road; thence North 65° 32' East, 31.0 feet along the South line of the Old Riceville Road to an iron pin; thence South 84° 09' East, 586.4 feet with Wilson along a line marked by a fence to an iron pin in the West line of Matlock Avenue; thence South 02° 52' West, 599 feet along the West line of Matlock Avenue to the point of BEGINNING.

AND BEING the same property conveyed to Athens Bed Company, a Delaware Corporation, by Warranty Deed from Royal Crown Cola Co. , a Delaware Corporation, dated September 29th, 1972, of record in Deed Book 7-D, at pages 334-338, Register's Office, McMinn County, Tennessee, to which reference is hereby made.

This property was acquired by Royal Crown Cola Co. pursuant to the 1972 merger of Athens Bed Co., Inc., a Tennessee Corporation, into Royal Crown Cola Co. and was conveyed by Royal Crown Cola Co. to Athens Bed Company, a Delaware Corporation in 1972. In 1974, Athens Bed Company was renamed Athens Home Decor , Inc. and in 1976, Athens Home Decor , Inc. was renamed Athens Furniture, Inc. In 1978, Royal Crown Cola Co. was renamed Royal Crown Companies, Inc.

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors does hereby covenant with the said party of the second part, its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

ATHENS FURNITURE, INC.
BY: _____
Jack Coppersmith
Sr. Vice President

STATE OF FLORIDA §
COUNTY OF DADE §

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith with whom I am personally acquainted, and who upon oath acknowledged himself to be the Sr. Vice President of ATHENS FURNITURE, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

Cynthia A. Mills
NOTARY PUBLIC

Commission Expires:
Notary Public, State of Florida
My Commission Expires July 14, 1991
Bonded thru Troy Fain-Insurance Inc.

STATE OF TENNESSEE 1:41 O'Clock P M. 9-28
MONROE COUNTY 88
In Deed 10-Z 489-491
Kathy Snyder

This instrument was prepared by Thomas M. Boyd, Attorney, P.O. Box 56, Athens, Tennessee 37303.

PROPERTY TRANSFER NOTED
9-28-88
28-1487 CURTIS FOSTER
McMinn County Property Assessor

Pick up

Evidence that State Tax is Paid
State Tax $21.12
Clerk's Fee .50
Total Paid $21.62
Virginia Fisher Snyder
Register of Deeds

WARRANTY DEED

THIS INDENTURE, Made this 20th day of March, A. D., 1987, between ATHENS FURNITURE, INC., a Delaware Corporation with its principal office in Athens, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the first part, and NEW ATHENS, INC., A DELAWARE CORPORATION, of McMinn County, in the State of Tennessee, hereinafter referred to as party of the second part.

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, to it in hand paid by the said party of the second part, the receipt of which is hereby acknowledged, has granted, bargained, sold, conveyed, and does hereby grant, bargain, sell and convey unto the said party of the second part, the following described premises, to-wit:

LYING AND BEING situated in the First Civil District of McMinn County, Tennessee, and within the Corporate Limits of the City of Athens, the same being a lot containing 1.20 acre, being bounded on the North by Frye Street; on the West by North Matlock Avenue; on the South by Athens Bed Company and Elder, and being more particularly described as follows, to-wit:

BEGINNING at a nail & cap in the Southwest corner of the within described property, at a common corner with Athens Bed Company, and in the East line of North Matlock Avenue; from said point of beginning, North 00° 01' East, 133.4 feet along the East line of North Matlock Avenue to an iron pin; thence on a curve to the right turning on a radius of 35.0 feet, the tangent of which is 34.9 feet, to a point where the East line of North Matlock Avenue turns into the South line of frye Street; thence along the South line of Frye Street, North 89° 51' East, 118.7 feet to a point; thence on a curve to the right turning on a radius of 475.0 feet, the tangent of which is 163.5 feet, to a point; thence South 53° 56' East, 25.7 feet to a point; thence South 82° 13' West, 459.4 feet along the common dividing line with Elder, Edler and Athens Bed Company to the point of beGINNING, according to the survey of Morgan Watkins Engineering Company, Inc., Paul R. Lingerfelt, Surveyor, bearing date of November 29th, 1976, being drawing #76230-1.

AND BEING the same property conveyed to Athens Furniture, Inc., a Delaware Corporation with its principal office in Athens, TN, by Warranty Deed dated September 9th, 1982, from Carl E. Lay and wife, Iva A. Lay, of record in Deed Book 9-k, pages 42-43, in the Register's Office, McMinn County, TN, to which reference is hereby made.

FORWARD TAX STATEMENT TO:

Athens Furniture, Inc.
(formerly named New Athens, Inc.)
Owner (X) Mortgagee ( )
P.O. Box 929
Athens, TN 37303
Address

STATE OF TENNESSEE
COUNTY OF

I, or we, hereby swear or affirm that the actual consideration or true transfer or value of the property transferred, whichever is greater is $ 6400.00 which amount is equal to or greater than the amount which the property transferred would command at a fair voluntary sale.

Affiant

Subscribed and sworn to before me this the 28 day of Sept, 1988

Notary Public

TO HAVE AND TO HOLD the said premises to the said party of the second part, its successors and assigns forever.

And the said party of the first part for itself and for its successors does hereby covenant with the said party of the second part, its successors and assigns that it is lawfully seized in fee simple of the premises above conveyed and it has full power, authority and right to convey the same that said premises are free from all encumbrances and that it will forever WARRANT AND DEFEND the said premises and the title thereto against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said corporation hath hereunto caused its corporate seal to be affixed, and by these presents to be signed by its Sr. Vice President the day and year first above written.

ATHENS FURNITURE, INC.

BY: _____

Jack Coppersmith, Sr. Vice President
(title)

AT TENNESSEE
COUNTY
1:42 O'Clock P M., 9-28
80 Then was filed this instrument with Notarial seal and
Deed Book 10-Z, pages 492-493
Kathy Snyder D. C.

STATE OF FLORIDA §

COUNTY OF DADE §

Before me, the undersigned authority, a Notary Public in and for the State and County aforesaid, personally appeared Jack Coppersmith with whom I am personally acquainted, and who upon oath acknowledged himself to be the Sr. Vice President of ATHENS FURNITURE, INC., the within named bargainor, a corporation, and that he as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as such officer.

Witness my hand and official seal at office this 9th day of August, 1988.

NOTARY PUBLIC

Notary Public, State of Florida
My Commission Expires July 14, 1991
Bonded Thru Troy Fain - Insurance Inc.

My Commission Expires: _____

Reference 5

Harris
Tennessee Manufacturers Directory

1999
Page 41

Harris Tennessee Manufacturers Directory 99

This directory replaces the Directory of Tennessee Manufacturers formerly published by M. Lee Smith Publishers LLC

Published in cooperation with the Tennessee Department of Economic & Community Development

Published Annually by

HarrisInfoSource™

)57 E AURORA ROAD • TWINSBURG, OHIO 44087-1999
800-888-5900 • 330-425-9000 • FAX: 330-425-7150
www.HarrisInfo.com

Frances L. Carlsen
Editorial Manager

Corporate Staff

Robert A. Harris, *Chairman*
Dennis L. Abrahams, *President & Chief Executive Officer*
Kevin Herendeen, *Sr. V.P. & Chief Financial Officer*
Andrew T. Celestina, *Sr. V.P. & Chief Information Officer*
Kevin Krause, *Sr. V.P. of Marketing*
Frances L. Carlsen, *Editorial Manager*
Jill M. Mason, *Director of Sales*
Michelle L. Richter, *Manager of Corporate Communications*
Susan M. Tedick, *List Manager*

Publisher

Harris InfoSource
2057 E Aurora Road
Twinsburg, Ohio 44087-1999

1999 Harris Tennessee Manufacturers Directory ISSN 1065-4739 ISBN 1-55600-648-9

Printed in Canada

▼**EMP:** 2500 **EST:** 1946
SQ. FT: 1,000,000
Privately Owned
SIC: 3639 3443 Water heaters & pump tanks

(G-95)
STEELE SADDLE TREE LLC
1343 Saddle Tree Rd (37015-6046)
Phone 615 307-4515
Ed Steele, *Partner*
Ronnie Smith, *Partner*
Jane Smith, *Partner*
▼**EMP:** 25 **EST:** 1848
EST. SLS: $1MM-4.9MM
Privately Owned
SIC: 2499 Wooden saddle trees

(G-96)
TENNESSEE WIRE & CABLE
2010 Highway 12 S (37015-3913)
Phone 615 792-7831
FAX: 615 792-7836
Garry Gilliland, *General Mgr*
EMP: 15
EST. SLS: $1MM-4.9MM
Privately Owned
SIC: 3496 3357 Electrical appliance wire

(G-97)
THOMCO CO INC
1032 Thompson Rd (37015-3923)
PO Box 308 (37015-0308)
Phone 615 952-5930
FAX: 615 792-3918
[illegible] Thompson, *Owner*
EMP: 10 **EST:** 1973 **ACRES:** 5
Privately Owned
SIC: 7692 3441 3599 Arc, gas, MIG, TIG & heliarc welding, grinding & steel fabricating

TIMCO INC, ASHLAND CITY TN See Color Converting Industries

(G-98)
TRINITY ASHLAND CITY
Div Trinity Industries
1050 Trinity Rd (37015-3908)
PO Box 239 Nashville (37202-0239)
Phone 615 244-2050
FAX: 615 792-8251
Ron Nokes, *Sales Mgr*
Neal Langdon, *Materials Mgr*
Jeff Pancrov, *Purch Agent*
Jim Smithson, *Persnl Mgr*
Ken Watson, *Plant Mgr*
EMP: 250 **EST:** 1902
EST. SLS: $10MM-24.9MM
Publicly Owned
SIC: 3471 3441 3731 Sand blasting & steel fabricating, barges & deck fittings
HQ: Trinity Industries Inc
2525 N Stemmons Fwy
Dallas, TX 75207
214 631-4420

(G-99)
[illegible]TON BOAT CO LP ✪
[illegible] Blue Grass Dr (37015-3934)
Phone 615 792-6767
Toll Free: 888 887-4866
FAX: 615 792-9053
[illegible] Bentz, *President*
[illegible], *CFO*
[illegible] Hart, *V P Mktg*
[illegible] Meadows, *V P Opers*
[illegible], *V P Prdt Dvlpt*
[illegible], *V P Sales*
[illegible] Murphy, *Dir Purch*
[illegible] Poindexter, *Human Res Mgr*
EMP: 250 **EST:** 1997
SQ. FT: 190,000
EST. SLS: $25MM-49.9MM
Privately Owned
SIC: [illegible] Fiberglass bass boats

ATHENS
Population - 12,054
Mc Minn County

(G-100)
A & B EQUIPMENT CO
2811 Decatur Pike (37303-6981)
Phone 423 745-7966
FAX: 423 745-8144
Ron Lauth, *General Mgr*
EMP: 10
EST. SLS: $1MM-4.9MM
Privately Owned
SIC: 3523 Farm machinery: tilling equipment

(G-101)
AMERICAN BEDDING MANUFACTURERS
101 Short St (37303-3331)
PO Box 1048 (37371-1048)
Phone 423 745-1512
Boyd Reynolds, *Owner*
EMP: 5
EST. SLS: $500-999K
Privately Owned
SIC: 2515 Mattresses & box springs

(G-102)
ATHENS FURNITURE INDUSTRIES (HQ)
1241 Frye St (37303-3055)
PO Box 929 (37371-0929)
Phone 423 745-1833
FAX: 800 467-1445
Pete Stieb, *President*
Jeff Foley, *V P Mfg*
Paul Mullins, *Controller*
Ray Cranfield, *Sales Mgr*
Jackie Davis, *Traffic Mgr*
Jo McPhail, *Marketing Mgr*
Nick Jones, *Purch Agent*
Ron Price, *Persnl Mgr*
John Stone, *Data Proc Mgr*
▼**EMP:** 30 **EST:** 1905
SQ. FT: 750,000
Privately Owned
SIC: 2511 2499 2512 Bedroom furniture

ATHENS MATTRESS CO INC, ATHENS TN See American Bedding Manufacturers

(G-103)
ATHENS METAL PRODUCTS INC
2834 Highway 11 S (37303-6152)
Phone 423 745-2234
FAX: 423 744-0321
Raymond Casteel, *President*
Joyce Casteel, *Sec/Treas*
EMP: 2 **EST:** 1983
EST. SLS: Under $500K
Privately Owned
SIC: 3364 3469 Metal stampings & nonferrous die castings

(G-104)
ATHENS PLOW CO INC
11 Green St (37303-3670)
PO Box 609 (37371-0609)
Phone 423 744-7569
FAX: 423 744-7218
Bill Willson, *President & Owner*
Sam Brown, *Purch Agent*
Jackie Plemons, *Plant Mgr*
▼**EMP:** 22 **EST:** 1987
SQ. FT: 30,000
EST. SLS: $1MM-4.9MM
Privately Owned
SIC: 3523 Farm plow equipment

(G-105)
ATHENS PRODUCTS CO
Sub White Consolidated Inds
2000 Tellico Ave (37303-2130)
Phone 423 745-0060
FAX: 423 745-2952
Jerry Cantrell, *Traffic Mgr*
Terri Wall, *Prdtn Mgr*
Marc Adams, *Purch Agent*
Gary Stout, *Persnl Mgr*
Jerald W Borchers, *Plant Mgr*
Joe Robinson, *Safety Mgr*
▼**EMP:** 375 **EST:** 1970
SQ. FT: 180,000
EST. SLS: $50MM-99.9MM
Publicly Owned
SIC: 3621 Hermetic electric motors
HQ: White Consolidated Industries
11770 Berea Rd
Cleveland, OH 44111
216 252-3700

(G-106)
ATHENS TOOL & ENGINEERING
2101 Old Niota Rd (37303-2149)
PO Box 1814 (37371-1814)
Phone 423 745-5459
FAX: 423 745-5434
Harold Peeler, *Owner*
Greg Burton, *Plant Mgr*
EMP: 6 **EST:** 1992 **SQ. FT:** 6,000
EST. SLS: $500-999K
Privately Owned
SIC: 3599 3444 3544 Machine shop: general & precision machining, custom metal fabricating, lathe & mill work; tool & die

(G-107)
CORNERSTONE GRAPHICS
105 N Jackson St (37303-3637)
Phone 423 744-7668
Dennis Thomas, *Owner*
Vann Cunningham, *Owner*
Don Wilson, *General Mgr*
EMP: 4 **EST:** 1987
EST. SLS: Under $500K
Privately Owned
SIC: 2396 Fabric screen printing

(G-108)
CREATIVE FABRICATION CORP
3000 George R Price Blvd (37303-7814)
Phone 423 745-3662
FAX: 423 745-3308
Barbara Soper, *Human Res Mgr*
EMP: 50 **EST:** 1996
SQ. FT: 100,000
EST. SLS: $5MM-9.9MM
Privately Owned
SIC: 3412 Steel containers

(G-109)
DAILY POST ATHENIAN (HQ)
320 S Jackson St (37303-4715)
PO Box 340 (37371-0340)
Phone 423 745-5664
FAX: 423 745-8295
Greg Jones, *Owner*
Rhonda Whaley, *Accounting Mgr*
Sara Jane Locke, *Adv Mgr*
Tom Cogdell, *Circ Mgr*
Ralph Baldwin, *Publisher*
EMP: 50 **EST:** 1848
Privately Owned
SIC: 2711 Newspaper publishing & printing

(G-110)
DAMY INDUSTRIES INC (HQ)
1930 N Jackson St (37303-1981)
PO Box 969 (37371-0969)
Phone 423 745-7620
FAX: 423 745-1658
Lesalyn Famum, *President*
Carolyn M Clark, *Controller*
Michael Moss, *Traffic Mgr*
Gary Hammons, *Prdtn Mgr*
Lavenia Sparks, *Persnl Mgr*
EMP: 220 **EST:** 1974
SQ. FT: 125,000
Privately Owned
SIC: 2341 2384 Women's robes & loungewear

(G-111)
DENSO MANUFACTURING TN INC ✪
2400 Denso Dr (37303-7835)
Phone 423 746-0000
FAX: 423 746-1090
Hugh Cantrell, *Human Res Mgr*
Eddie Tanaka, *Q C Mgr*
Mike Wollerman, *Plant Mgr*
Jose Colindres, *Design Engr Prdtn*
◆**EMP:** 260 **EST:** 1997
EST. SLS: $25MM-49.9MM
Privately Owned
SIC: 3822 3714 Oxygen sensors & fuel injectors
DH: Denso Manufacturing TN Inc
1720 Robert C Jackson Dr
Maryville, TN 37801
423 982-7000

GEOGRAPHIC

Reference 6

Tennessee Department of Environment and Conservation
Division of Solid Waste Management

Tennessee Hazardous Waste Annual Report Transmittal 2-22-94
Hazardous Waste Generator Maintenance Fees 1-28-99
Hazardous Waste Stream Report 1-28-99
Hazardous Waste Inspection Report 3-13-90
Hazardous Waste Inspection Report 5-3-88
Hazardous Waste Notification 1-20-88

McMinn

STATE OF TENNESSEE
DEPARTMENT OF HEALTH AND ENVIRONMENT
2700 Middlebrook Pike
Suite 220
Knoxville, Tennessee 37921

March 13, 1990

Mr. Tony Pendasulo
Vice President of Manufacturing
Athens Furniture, Inc.
P. O. Box 929
Athens, TN 37303

I. D. No. TND-00-332-8937

RE: Inspection Under the Tennessee
Hazardous Waste Management Act and RCRA,
40 CFR, Part 268 and Revisions to 40 CFR, Parts 260-265
Bed Plant and Dimension Plant
March 7, 1990

Dear Mr. Pendasulo:

We are writing to confirm the observations and recommendations which were made and discussed with representatives of your facility during the referenced inspection.

No violations of the regulations promulgated under the authority of the Tennessee Hazardous Waste Management Act or RCRA 40 CFR, Part 268 and revisions to 40 CFR, Parts 260-265 were noted; however, a copy of the Hazardous Waste Inspection Report is attached for your information and review.

If you desire our advice or assistance, do not hesitate to contact us.

Yours truly,

Rick Brown

Rick Brown
Environmental Engineer
Division of Solid Waste Management

RSB:pg 26019072900401 SW4B

cc: Nashville Office - Div. of Solid Waste Management

HAZARDOUS WASTE INSPECTION

NAME OF FACILITY
Athens Furniture, Inc.
Bed Plant and Dimension Plant

I.D. NUMBER
TND-00-332-8937

ADDRESS AND LOCATION
Corner Matlock Road and Frye Street
Athens, Tennessee

OWNER/OPERATOR/PRINCIPAL CONTACT
Owner: DWG Corporation
Operator: Tony Pendasulo, Vice President of Manufacturing
Principal Contact: Joe Lawson

MAILING ADDRESS
P. O. Box 929
Athens, Tennessee 37303

TELEPHONE
(615) 745-1833

DATE/TIME OF INSPECTION
March 7, 1990

REPORT PREPARED BY
Rick Brown
Division of Solid Waste Management
2700 Middlebrook Pike, Suite 220
Knoxville, Tennessee 37921
Phone (615) 594-6466

NAMES(S) OF PARTICIPANTS/TITLES/AFFILIATIONS
Rick Brown, Environmental Engineer, Division of Solid Waste Management
Joe Lawson, Purchasing Agent, Athens Furniture, Inc.
Jim Thornton, Manager, Athens Furniture, Inc., Dimension Plant

PURPOSE OF INSPECTION
This inspection was conducted as a result of a complaint received by telephone on March 6, 1990. This complaint alleged that Athens Furniture, Inc., was burning hazardous waste in their boiler at the Dimension Plant. This is allowed if it is done properly and in compliance with the regulations, but it had been our understanding that Athens Furniture, Inc., was not doing this any more. The primary purpose of this inspection was to determine if the burning was being done at all, and if so, how it was being done, what kind of records were being kept, and how the ash was being managed. The inspection consisted of a walk-through or partial inspection in which waste accumulation areas, inspection logs, and shipping records were examined. Athens Furniture, Inc., is subject to the requirements of the Rules Governing Hazardous Waste Management in Tennessee for small hazardous waste generators of 100-1000 kilograms of hazardous waste per month who temporarily accumulate their hazardous waste on site.

FACILITY DESCRIPTION

Athens Furniture, Inc., manufactures finished hardwood furniture and operates three plants in Athens, Tennessee, for this purpose. The two plants which were inspected occupy contiguous property at the corner of Matlock Road and Frye Street on the southwest side of Athens, Tennessee.

The Bed Plant manufactures bed frames and other wooden bedroom furniture such as dressers. The furniture is given a natural-type finish by applying stains and glazes with paint spray guns. The hazardous waste is generated from cleaning paint spray guns, stripping imperfectly finished pieces, or cleaning excess finish from places where it has accumulated. The solvent blend used for all of these applications contains methyl ethyl ketone, toluene, methanol and other alcohols, and petroleum naphtha; therefore, the spent solvent is an F003/F005 hazardous waste. Waste generation has been reduced by completely flushing the paint guns only when necessary; covering areas of the furniture where it is not desirable for the spray to penetrate; and using dirty thinner to finish non-visible sections or as make-up thinner for coatings which do not need to be high quality.

The Dimension Plant manufactures wooden desks. The desk frames (legs, sides, and drawers) are shaped here and then are sent to the Bed Plant to be finished in the same manner as the bedroom furniture. The tops of the desks may be finished this way also, or they may be finished by roller coating at the Dimension Plant. In this operation a uniform wood color is applied with the first roller as the tops pass by on a conveyor belt. Then a simulated wood grain is applied with a second roller. The first roller is cleaned with acetone at the end of an operation. The ink is cleaned form the second roller with water and the resulting waste has been determined to be non-hazardous.

The acetone waste from the Dimension Plant used to be the largest single hazardous waste source from the Athens Furniture, Inc., plants. Now this waste stream has been greatly reduced because much less of this type of finishing is being done. The total hazardous waste generated from both plants has been reduced to less than one 55-gallon drum per month, on the average.

The Dimension Plant still maintains a satellite accumulation area near the roller coating operation. When a full drum has accumulated here it is taken to the main accumulation area (formerly used by the Bed Plant only) which is a concrete pad surrounded by a chain link fence in the yard between the two plants.

Both satellite and main accumulation areas have fire extinguishers and drums of sawdust for use as absorbent material. The Dimension Plant also has a spill cart with bags of mineral absorbent.

The waste from both plants is now picked up at the main accumulation area between the two plants. Since both plants combined generate less than 1000 kilograms per month, the waste may be kept on site for up to 180 days from the time that the oldest drum on-site was filled. The waste is presently being transported by Fisher Environmental Service, Inc. (ALD-98-102-0894) to their facility in Glencoe, Alabama (same identification number) to be used for fuel blending purposes.

INSPECTION FINDINGS

No violations of the Tennessee Hazardous Waste Management Act or Rules were observed during this inspection.

RECOMMENDATIONS/REMARKS

The plant manager of the Dimension Plant, Mr. Jim Thornton, stated during the inspection that to his knowledge no hazardous waste had been burned in the boiler at the Dimension Plant in about two years. He also said that he doubts that any of the hazardous waste would have been burned without his knowledge. We have no reason to question this because hazardous waste is being accumulated in the designated accumulation areas awaiting shipment and the amounts accumulated are consistent with their reported generation rate. There are presently four (4) drums of hazardous waste in the main accumulation area which have accumulated since the last shipment, which was September 28, 1989. The last drum was moved from the Dimension Plant to the main area during February, and there is one partial drum in the Dimension Plant's satellite area now.

According to the company, the water curtain paint spray booth residue, which is a non-hazardous waste so long as the spent solvents are kept out of it, is being burned in the boiler at the Bed Plant. This may have been the source of the complaint. Such burning is subject to regulation only by the Division of Air Pollution Control.

Athens Furniture, Inc., says that they have no plans to resume burning their hazardous waste because at the present time they can ship it off-site for fuel blending more cheaply than they can burn it.

Athens Furniture, Inc., is reminded that the six month (180 day) time limit for accumulation at the Bed Plant is getting close and that a waste pickup needs to be scheduled soon.

It is not required by the Regulations for the inspection logs to continue to be kept for the satellite accumulation area at the Dimension Plant, so long as no more than one full drum (55 gallons) is allowed to accumulate there.

The two plans covered by this inspection originally notified separately. They have now re-notified as one generator which is proper since they occupy contiguous property and are connected by an internal road which can be used by all types of vehicles. Both plants now use the installation identification number originally assigned to the Bed Plant.

Rick Brown

March 13, 1990
Date

Rick Brown
Environmental Engineer
Division of Solid Waste Management

RSB:pg 26029072900501 SW3

File: Athens Furniture H. W.

STATE OF TENNESSEE
DEPARTMENT OF HEALTH AND ENVIRONMENT
1605 PROSSER ROAD
KNOXVILLE, TENNESSEE 37914-3434

May 3, 1988

Mr. Joe Lawson, Purchasing Manager
Athens Furniture, Inc. - Dimension Plant
P.O. Box 929
Athens, Tennessee 37303

Re: Inspection Under the Tennessee Hazardous Waste Management Act and RCRA, 40 CFR, Part 268 and Revisions to 40 CFR, Parts 260-265
April 26, 1988
ID Number: TND 00-081-4525

Dear Mr. Lawson:

We are writing to confirm the observations and recommendations which were made and discussed with representatives of your facility during the referenced inspection.

No violations of the regulations promulgated under the authority of the Tennessee Hazardous Waste Management Act or RCRA 40 CFR, Part 268 and revisions to 40 CFR, Parts 260-265 were noted; however, a copy of the Hazardous Waste Inspection Report is attached for your information and review.

If you desire our advice or assistance, do not hesitate to contact us.

Yours truly,

Rick Brown

Rick Brown
Environmental Engineer
Division of Solid Waste Management

RSB:arb DSW/2

cc: McMinn County Health Department
DSWM - Nashville, Attention: Dan Hyder, Enforcement Section
Southeast Regional Health Office

HAZARDOUS WASTE INSPECTION REPORT

NAME OF FACILITY
Athens Furniture, Inc. - Dimension Plant

I.D. NUMBER
TND-00-081-4525

ADDRESS AND LOCATION
8 Frye Street
Athens, Tennessee 37303

OWNER/OPERATOR/PRINCIPAL CONTACT
Owner/Operator: Athens Furniture, Inc.
Principal Contact: Joe Lawson

MAILING ADDRESS
P.O. Box 929
Athens, Tennessee 37303

TELEPHONE
(615) 745-1833

DATE/TIME OF INSPECTION
April 26, 1988 10:00 A.M.

REPORT PREPARED BY
Rick Brown
Division of Solid Waste Management
1605 Prosser Road
Knoxville, Tennessee 37914-3434

NAME OF PARTICIPANTS/TITLES/AFFILIATIONS
Rick Brown, Environmental Engineer, Division of Solid Waste Management
Joe Lawson, Purchasing Manager, Athens Furniture, Inc.

PURPOSE OF INSPECTION
This was a follow-up to the previous inspection of February 24, 1988. The inspection was conducted at this time because we were notified by Athens Furniture, Inc., that they had begun burning their hazardous waste in the boiler located at this plant. Athens Furniture, Inc., reportedly generates less than 100 kilograms per month of hazardous waste at this plant; therefore, the hazardous waste management program at this plant was inspected according to the requirements of the Rules Governing Hazardous Waste Management in Tennessee for "conditionally exempt small quantity generators" of less than 100 kilograms per month.

FACILITY DESCRIPTION
The Athens Furniture Company, Inc., Dimension Plant is located adjacent to the Athens Furniture, Inc., Bedroom Furniture Division plant in the southwest section of Athens, Tennessee. This plant manufactures wooden desks. There are two sources of hazardous waste generation. The primary hazardous waste is acetone which is used to clean rollers which apply a

base coat to desk tops. The other hazardous waste, generated in much smaller quantities, is spent lacquer thinner from cleaning paint spray guns used to apply lacquer finishes to the desk frames. The hazardous wastes are poured into 55-gallon drums which are accumulated outdoors at the rear of the plant.

The Dimension Plant has a boiler which burns primarily wood trimmings as fuel. Athens Furniture, Inc., has determined that this unit meets the definition of a "boiler" in Rule 1200-1-11-.01(2) and can therefore be used to burn hazardous waste such as that generated at this plant within the terms of this definition without having an incinerator permit. A special pump and nozzle have been obtained to feed the waste from drums into the boiler. All of the existing inventory of hazardous waste generated at this plant was burned in the boiler during late March-early April 1988. The boiler ash from burning the hazardous waste is retained in the ash bin and has not been moved.

INSPECTION FINDINGS

No violations of the Rules Governing Hazardous Waste Management in Tennessee were observed during this inspection. The violations cited during previous inspections have now been corrected.

RECOMMENDATIONS/REMARKS

Samples of the boiler ash were collected during the burning operations; these were sent to a laboratory to be tested for F003-F005 hazardous waste constituents in order to determine how the ash may be disposed of. Athens Furniture, Inc., has not yet received the sampling results.

Athens Furniture, Inc., also planned to burn hazardous waste from their Occasional Furniture Division plant located across town in this boiler. The waste from the Occasional Furniture Division plant has been loaded onto a tractor trailer and consists of 12 drums which are definitely hazardous waste plus 73 other drums which may be hazardous waste; this is definitely a quantity subject to full regulation including manifesting requirements. Without a permit for storage the Athens Furniture, Inc., Dimension Plant cannot receive hazardous waste from an off-site source; however, hazardous waste from off-site can only be burned in the boiler provided that each drum is connected to the boiler feed line immediately upon being unloaded so that no storage occurs. This could possibly be done by keeping all of the drums on the transporter's trailer except the one actually being burned (unloading the drums for burning one at a time). A transporter may retain hazardous waste on his vehicle at a transfer facility for up to ten (10) days, during which time the transporter is responsible for the waste.

The Dimension Plant must also notify as a burner of hazardous waste as required by Rule 1200-1-11-.09(4)(f)2.(i). This may be done as an update to the present notification.

At the time of the inspection there was one drum in the accumulation area which was between 1/3-1/2 full. According to the company the burning of the existing waste inventory was completed during the first week in April, so it would appear that this quantity of waste was generated in less than a month. Athens Furniture, Inc., has notified that only 15 kilograms of hazardous waste per month are currently generated. This would be only about 5 gallons of typical F003-F005 waste. About 20-30 gallons appear to

have been generated during the past month. We were told that the reported generation rate was determined based on implementing several waste minimization measures. While we encourage waste minimization, we think that generation rates reported for notification purposes should be based on the real rather than the ideal situation. Athens Furniture, Inc., should reevaluate the waste generation at this plant and determine what the waste generation is realistically going to be, although we also encourage efforts to educate workers and monitor the generating process to reduce the generation rate as much as practical.

Currently the generation rate appears to be close to 100 kilograms per month. If this is found to be a typical generation rate Athens Furniture, Inc., should prepare to meet the requirements for generators of 100-1000 kilograms per month of hazardous waste at this plant. If the realistically achievable normal generation rate is significantly higher than 15 kilograms per month Athens Furniture, Inc., must file an amended "hazardous waste stream report" form revising the generation rate.

Rick Brown — May 3, 1988

Rick Brown

RSB:arb/SWM#4G

ATTACHMENTS/EXHIBITS

Mailed for YEAR 19__
2/22/94
w/ck
14851
CFO File 54-1

Tennessee Hazardous Waste Annual Report Transmittal

Tennessee Department of Environment and Conservation, Division of Solid Waste Management
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please supply the information requested below to help us promptly and accurately process your completed annual report and fee forms. Place this form in front of your other forms to be submitted and return to the address shown above.

TND 00-332-8937 YY - - Knoxville

ATHENS FURN IND INC BED & DIMENSION PLANT
Attn: JOE LAWSON
PO BOX 929
ATHENS, TN 37303

Please complete and return the original to the above address.

For technical assistance, call 1-(800) 237-7018 (in Tennessee only.)

HAZARDOUS WASTE FORMS AND TOTALS		Number of Forms	Totals
1. Hazardous Waste Notification			
2. Waste Stream Reports	Reference	75 KG	Sum amount generated
3. Offsite Shipping Report	6	'5 KG	Record total shipped offsite
4. Generator fee form	Sum File	0	Generator fee Paid
Lines 5 - 7 are for permitted facilities o			
5. TSDR Offsite Receipt Report			Record total received
6. TSDR Summary Report		Total each numeric column and place on last page summary report.	
7. TSDR Fee form			Total Paid

8. Circle the transmittal method for fee payments. (Enclosed) Separate cover.

9. Comments:

CN-1003

Hazardous Waste Notification

Tennessee Department of Environment and Conservation, Division of Solid Waste Management.
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

If below is incorrect, please change, certify and return. Retain a copy of any changes.

1. Organization's full, legal name	EPA identification code
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. Mailing address	City	State	Zip code
PO BOX 929	ATHENS	TN	37303

3 a. Site address	City	State	Zip code	County name
10 MATLOCK ROAD, ATHENS, TN 37303				McMinn

b. Latitude (degrees, minutes & seconds)	Longitude (degrees, minutes & seconds)
35.2631	84.3346

4. Owner name	Phone with area code
ATHENS FURN IND INC	(615) 745-1833

5. Manager or operator name	Phone with area code
PETE STIEB	(615) 745-1833

6. Principal technical contact	Phone with area code
JOE LAWSON	(615) 745-1833

7. Number of employe	Year operation began	SIC codes (Primary SIC first,etc.)	Job shop Yes No
300	1946	2511. . .	(N)

8. Emergency contacts for 24 hours per day and 7 days per week

	Name	Time period covered	Phone with area code
a.	JOE LAWSON	ALL	(615) 745-1833
b.	TROY DOBSON	ALL	(615) 745-1833
c.	BOB CUNNINGHAM	ALL	(615) 745-1833
d.			

9. List current environmental (air, water, and radiological) permits. Give permit type, source, number and expiration date. In a range of related permits, give the first and last permit number.
AIR ONLY

10. Check the activities below you are engaged in related to recycling or burning hazardous waste as a fuel.
a. Fuel blending or marketing of hazardous waste as a fuel. . . . . a(X)
b. Transporting hazardous waste as fuel . b( )
c. Burning hazardous waste as fuel . . . c( )

d. Do you receive RCRA hazardous waste from off-site and recycle it? Yes ( ), No (X).

11. Certify that the information given in this document is true, accurate and complete by signing and dating.

Signature of authorized representative	Title	Date
Tony Lawson	Vice Pres. of Mfg.	2-22-94

*** Below is for Department use only **********

12. Date received	County code	Priority	Generator Yes / No	Small Generator Yes / No	Special status
	54				

13. Date closed	Date regulated	Date deregulated

14. Comments

CN-0909 (11/92)

Hazardous Waste Stream Report

Tennessee Department of Environment and Conservation, Division of Solid Waste Management.
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please complete and/or correct, certify and return regardless. Retain a copy for your records.

1. Organization's full name at facility.	EPA identification code
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. Waste name. Use standard name from regulations whenever possible.	Waste Stream number
LACQUER THINNER & ACETON-MIXED SOLVENTS	1

3. Give the years that this waste has been generated, e.g. 1975, 1982-.	Date no longer generated. (MM/DD/YY)	Frequency of generation (V)		
		Continuous	Accidental/ One time	Various
				———

4. Circle all appropriate hazard criteria below. Ignitable (a), EP toxic (b), Corrosive (c), Reactive (e), Other toxic (f), TCLP (g). AF	EPA waste codes. (Primary first; six maximum.)	SIC code for generating process.
	F005,F003,D001	2511,

5. Physical form	% Solid	% Water	Vol. to wt. conversion (pounds/gallon)	If used for fuel, chlorine content (PPM)	BTU per pound
Liq-Othr (3)	.0	.0	7.000	0.0	13,371.0

6. Generation rates. Supply all rates in kilograms. Monthly maximum (kg)	Annual average (kg)	Maximum amount stored on-site (kg)	Maximum days stored
500.0	6,000.0	1,500.0	90

7. DOT shipping name	DOT hazard class		DOT ID code
SOLVENT WASTE FLAMMABLE LIQUID NOS	Flam. liquid	07	UN1993

8. Describe generation process.

USED TO CLEAN EQUIPMENT AND "WASH OFF" DEFECTIVE FINISHES

9. Chemical Characteristics.

pH	Flash point	Reactive code	Concentration units. For EP toxic and TCLP wastes, use PPM. % volume( ), % weight( ), PPM( ) ( )
6.7	<140		

Major and hazardous constituents. Give range of values at right.	lower value	upper value
a. ISOBUTYL ALCOHOL	5%	
b. METHYL ALCOHOL	5%	
c. ISOPROPYL ALCOHOL	10%	
d. ISOBUTYL ISOBUTYRATE	5%	
e. METHYL ETHYL KETONE	10%	

10. If this waste is recovered, reclaimed, recycled or reused, describe how.

#FUEL BLENDED FOR CEMENT KILNS

11. Annual Generation and Handling Data: If the waste was shipped off-site, summarize in block (a) and submit an Off-site Shipping Report. Report onsite handling in blocks (b) - (d). For offsite or onsite handling that requires interim status or a permit, use "T", "S", or "D" codes from the instructions. For other handling, use "H" codes.

Report Year 1993	Amount generated during year (kg)	Amount on-site in temporary storage on the first day of year (kg)	Amount on-site in temporary storage on the last day of year (kg)
	2275	0	0

	Total Handled OFFsite	TSDR handling/Waste management methods		Amount Handled ONsite	TSDR handling/Waste management methods
a	2275	T-16	b		
c	Amount Handled ONsite	TSDR handling/Waste management methods	d	Amount Handled ONsite	TSDR handling/Waste management methods

Hazardous Waste Reduction Data: Large Quantity Generators (LQGs) in 1989 are required to answer questions 12-15. Generators not in operation in 1989 have a different schedule for required reporting; see the instructions. Small quantity generators (SQGs) in 1989 are not required to answer questions 12-15 until the report due for calendar year 1994. However, we urge SQGs to answer them as it should help later when answers are required.

12. Specify your actual hazardous waste generation and final reduction goal as ratios of hazardous waste generated to the item, service or intermediary produced in its standard production units. See instructions for further details.

This year's actual ratio	Goal year's ratio	Goal Year	If no numeric goal has been set, describe your efforts to set one in line 15 below.
.016	.015	95	

13. Check the efforts undertaken to reduce the volume and/or toxicity in the generation of this waste during the reported year. This includes the efforts undertaken in previous years that affected the reported year. The reduction effort relates to generation processes and not treatment methods.

a. Reformulation/redesign of product . (a)
b. In process recycling. . . . . (bX)
c. Equipment/technology modification . (c)
d. Substituting raw materials . . . . (d)
e. Improved operations . . . . . (eX)
f. Reduction research/planning . . . . . .(r)
g. No effort . . . . . .(f)
h. Other - briefly explain here. . . . . .(g)

14. Rate the helpfulness of the items below that affected your hazardous waste reduction plan and its results. To the right of each item, circle one code: YES, this item helped reduction; NO, it hurt reduction; or NA, it was not necessary or did not affect reduction. See the instructions for further explanation.

a. Training or technical assistance.....a(No NA (Yes))
b. Technical feasibility.....b(No NA (Yes))
c. Economic practicality.....c(No NA (Yes))
d. Measurement/accounting methods.....d(No (NA) Yes)
e. TN hazardous waste regulations.....e((No) NA Yes)
f. Implementation experience.....f((No) NA Yes)
g. High costs of haz. waste mgt....g(No NA (Yes))
h. Accidental generation.....h(No (NA) Yes)
i. Other - describe here:.....i(No NA Yes)

15. Narrative: provide additional explanation of any of the above data that will show your efforts to reduce the generation of this hazardous waste or describe impediments to its reduction.

16. Certification: I certify that the information given on this form is true, accurate and complete.

SIGNATURE: (Generator or authorized representative)	TITLE:	DATE:
[signature]	Vice Pres. of Mfg.	2-22-94

*** Below is for Department use only. **********

17. Date received (MM/DD/YY)	Complete? Yes No	Test results? Yes No	Reasonable? Yes No	Follow up Yes No	Initials

Status: Not hazardous (1); Demonstrated not hazardous (2); Resource recovery (4); Partial exemption (5); Hazardous (6); Accidental (7); No longer generated (8); Variance granted (9); Conditionally exempt (A); Mixed radiological wastes (R); Corrective Action (C); Waste water Rx (W).

Status	Further Reporting Y N

18. Comments.

Hazardous Waste Stream Report

Tennessee Department of Environment and Conservation, Division of Solid Waste Management.
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please complete and/or correct, certify and return regardless. Retain a copy for your records.

1. Organization's full name at facility.	EPA identification code
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. Waste name. Use standard name from regulations whenever possible.	Waste Stream number
STAINS & GLAZES MIXED	2

3. Give the years that this waste has been generated, e.g. 1975, 1982-	Date no longer generated. (MM/DD/YY)	Frequency of generation		(V)
		Continuous	Accidental/ One time	Various
				------

4. Circle all appropriate hazard criteria below. Ignitable (a), EP toxic (b), Corrosive (c), Reactive (e), Other toxic (f), TCLP (g). AF	EPA waste codes. (Primary first; six maximum.)	SIC code for generating process.
	D001,F003,F005	2511,

5. Physical form	% Solid	% Water	Vol. to wt. conversion (pounds/gallon)	If used for fuel, chlorine content (PPM)	BTU per pound
Liq-Othr (3)	.0	.0	7.000	0.0	12,000.0

6. Generation rates. Supply all rates in kilograms. Monthly maximum (kg)	Annual average (kg)	Maximum amount stored on-site (kg)	Maximum days stored
490.0	5,800.0	3,000.0	180

7. DOT shipping name	DOT hazard class		DOT ID code
STAINS & GLAZES	Flam. liquid	07	UN1993

8. Describe generation process.

OBSOLETE FINISHING MATERIALS FOR FURNITURE

9. Chemical Characteristics. pH	Flash point	Reactive code	Concentration units. For EP toxic and TCLP wastes, use PPM. % volume( ), % weight( ), PPM( ) ( )	
6.7	<140			
Major and hazardous constituents. Give range of values at right.			lower value	upper value
a. MIXED STAINS & GLAZES			1	30
b. W/F003 & F005 SOLVENTS & D001				
c. W/MINERAL SPIRITS				
d.				
e.				

10. If this waste is recovered, reclaimed, recycled or reused, describe how.

#FUEL BLENDED FOR CEMENT KILNS.

Hazardous Waste Stream Report

Tennessee Department of Environment and Conservation, Division of Solid Waste Management.
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please complete and/or correct, certify and return regardless. Retain a copy for your records.

1. Organization's full name at facility.	EPA identification code
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. Waste name. Use standard name from regulations whenever possible.	Waste Stream number
STAINS & GLAZES MIXED	2

3. Give the years that this waste has been generated, e.g. 1975, 1982-	Date no longer generated. (MM/DD/YY)	Frequency of generation		(V)
		Continuous	Accidental/ One time	Various

4. Circle all appropriate hazard criteria below. Ignitable (a), EP toxic (b), Corrosive (c), Reactive (e), Other toxic (f), TCLP (g). AF	EPA waste codes. (Primary first; six maximum.)	SIC code for generating process.
	D001,F003,F005	2511,

5. Physical form	% Solid	% Water	Vol. to wt. conversion (pounds/gallon)	If used for fuel, chlorine content (PPM)	If used for fuel, BTU per pound
Liq-Othr (3)	.0	.0	7.000	0.0	12,000.0

6. Generation rates. Supply all rates in kilograms. Monthly maximum (kg)	Annual average (kg)	Maximum amount stored on-site (kg)	Maximum days stored
490.0	5,800.0	3,000.0	180

7. DOT shipping name	DOT hazard class		DOT ID code
STAINS & GLAZES	Flam. liquid	07	UN1993

8. Describe generation process.

OBSOLETE FINISHING MATERIALS FOR FURNITURE

9. Chemical Characteristics. pH	Flash point	Reactive code	Concentration units. For EP toxic and TCLP wastes, use PPM. % volume( ), % weight( ), PPM( ) ( )
6.7	<140		

Major and hazardous constituents. Give range of values at right.	lower value	upper value
a. MIXED STAINS & GLAZES	1	30
b. W/F003 & F005 SOLVENTS & D001		
c. W/MINERAL SPIRITS		
d.		
e.		

10. If this waste is recovered, reclaimed, recycled or reused, describe how.

#FUEL BLENDED FOR CEMENT KILNS.

1994 Hazardous Waste Generator Maintenance Fees

Tennessee Department of Environment and Conservation, Division of Solid Waste Management.
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

INSTRUCTIONS

Line 1: Complete the following to determine if you owe the hazardous waste maintenance fee for generators. **Return the certified form even if no fees are due.**

1.1 Enter the number of months in 1993 that you generated 100 to 1000 kilograms hazardous waste. 12

1.2 Enter the number of months in 1993 that you generated more than 1,000 Kilograms of hazardous waste. 0

If lines 1.1 and 1.2 are all zero, you owe no fee. Enter zero in line 1 below and skip to line 2.

If line 1.2 is greater than zero, enter $900 on line 1 below and skip to line 2.

Otherwise, enter $550 on line 1 below and continue on line 2.

Line 2: Certify that the information given is true, accurate and complete by an authorized representative of the site. Sign, give title and date.

TND 00-332-8937 YY - - Knoxville

ATHENS FURN IND INC BED & DIMENSION PLANT
Attn: JOE LAWSON
PO BOX 929
ATHENS, TN 37303

Please complete and return the original to the above address.

For technical assistance, call 1-(800) 237-7018 (in Tennessee only.)

1. See the instructions to determine if you owe a hazardous waste generator maintenance fee. If you are a large quantity generator, enter $900. If you are a small quantity generator, enter $550. Else, enter zero. Submit the completed form with your check or money order payable to Tennessee Department of Environment and Conservation. **Do not send cash.**	$550.00

2. Certify that the information given above is true, accurate and complete.
Signature of owner, manager or authorized representative. | Title Vice Pres. of Mfg. | Date 2-22-94

For DEPARTMENT USE	Date received	Amount	Receipt #	Comments
CD No.				

CN-0906 (11/92)

1993 Offsite Shipping Report

For wastes shipped off-site only.

IND 00-332-8937 YY - - Knoxville

ATHENS FURN IND INC BED & DIMENSION PLANT
Attn: JOE LAWSON
PO BOX 929
ATHENS, TN 37303

Please complete and return this form to following address:

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
Fifth Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1535

Also, complete this form when terminating business.
For technical assistance, call 1 (800) 237-7018 in Tennessee only.

2. Waste streams or "FS"	Dot Shipping Name or Waste name	EPA Waste codes	Amount shipped in kilograms	Number of shipments	TSDR/Destination Facility EPA ID number	Transporter EPA ID number	TSDR Handling codes
a. 1 & 2	Waste Flammable Liquid NOS UN1993	D001 F003 F005	2275	3	ALD981020894	ALD981020894	T-16
b.							
c.							
d.							
e.							
f.							
g.							
h.							
3. Totals: Sum the two columns to the right. Page totals: sum the following two columns Final totals: sum all page totals on last page of report			2275	3			

4. Certification: I certify that the above information is true, accurate and complete. (Sign by generator and give title and date.)

Tony Pendleton Vice President of Manufacturing 2-22-94

CN-0779 (11/92)

1999 Hazardous Waste Generator Maintenance Fees

Tennessee Department of Environment and Conservation, Division of Solid Waste Management
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

INSTRUCTIONS

Complete the following to determine if you owe the hazardous waste maintenance fee for generators. Return the certified form even if no fees are due.

1.1	Enter the number of months in 1998 that you generated more than 100 but less than 1000 kilograms of hazardous waste.	12
1.2	If you are a Conditionally Exempt Small Quanity Generator (CESQG), enter the number of months in 1998 that you accumulated at any time more than 1000 kilograms of non-acute hazardous waste.	0
1.3	Enter the number of months in 1998 that you generated 1,000 or more kilograms of hazardous waste.	0
1.4	Enter the number of months in 1998 that you generated 1 or more kilograms of acute hazardous waste, or 100 or more kilograms of a spill or residue of acute hazardous waste.	0
1.5	If you are a CESQG, enter one (1) if you received a Notice of Violation in 1998, other than for over-accumulation as expressed in line in 1.2 above.	0

Note: Wastes generated from the cleanup or containment of a Superfund site or a spill on public property shall be excluded from the above for the fee calculations only. Also, exlcuded are wastes listed under 1200-1-11-.02(1)(c)(ii) or 40 CFR 261.5 (c) & (d), incorporated by reference in 1200-1-11-.02(1)(a). For examples, wastes handled as H03, H05, H06 and H07; fly ash, drilling fluids, and cement kiln dusts; and still bottoms recycled onsite as long as the waste recycled has been counted once.

If all lines above are zero, you owe no fee. Enter zero on line 1 below and certify on line 2.

If either line 1.1 or 1.2 is greater than zero, and all lines 1.3 to 1.5 are zero, your are considered a small quantity generator for fee purposes. Enter $550 on line 1 below and certify on line 2.

If any line 1.3 to 1.5 is greater than zero, you are considered a large quantity generator for fee purposes. Enter $900 on line 1 below and certify on line 2.

Enter Name and Installation ID:

TND 00-332-8937 YY - - Chattanooga FO

ATHENS FURN IND INC BED & DIMENSION PLANT
Attn: JOE LAWSON
PO BOX 929
ATHENS, TN 37303

Please complete and return the original to the above address.

For technical assistance, call 1-(800) 237-7018 (in Tennessee only.)

1. See the instructions to determine if you owe a hazardous waste generator maintenance fee. If you are a large quantity generator, enter $900. If you are a small quantity generator, enter $550. Else, enter zero. Submit the completed form with your check or money order payable to Treasurer, State of Tennessee. Do not send cash. $ 550.00

2. Certify that the information given above is true, accurate and complete.

Signature of owner, manager or authorized representative.	Title	Date
[signature]	V-P MFG	1-28-99

Below is for DEPARTMENT USE only.

CD No.	Date received	Amount	Receipt #	Comments

CN-0906 (Rev. 11/95) RDA 2203

Hazardous Waste Notification

Tennessee Department of Environment and Conservation; Division of Solid Waste Management
Fifth Floor, L & C Tower; 401 Church Street; Nashville, TN 37243-1535

Please complete and/or correct, certify and return. Retain a copy for your records.

1. Organization's full, legal name	Installation identification no.
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. Mailing address	City	State	Zip code
PO BOX 929	ATHENS	TN	37303

3 a. Site address	City	State	Zip code	County name
10 MATLOCK ROAD, ATHENS, TN 37303				McMinn

b. Latitude (degrees, minutes & seconds)	Longitude (degrees, minutes & seconds)
35.2631	84.3346

4. Owner name (may be corporation or company name)	Type	Phone with area code
ATHENS FURN IND INC		(423) 745-1833

5. Manager or operator name	Type	Phone with area code
PETE STIEB		(423) 745-1833

6. Principal technical contact	FAX number + area code	Phone with area code
JOE LAWSON	(423) 745-9910	(423) 745-2441

7. Number of employees	Year operation began	SIC codes (Primary SIC first,etc.)	Job shop
405	1946	2511, , ,	Yes No (N)

8. Emergency contacts for 24 hours per day and 7 days per week

	Name	Time period covered	Phone with area code
a.	JOE LAWSON	ALL	(423) 745-0437
b.	JOE LAWSON		(423) 745-1833
c.	JOE LAWSON		(423) 507-2502
d.			

9. a. Do you receive RCRA hazardous waste from offsite and recycle it? Yes ( ) No (X)
b. Do you recycle RCRA hazardous waste from onsite? Yes( ) No (X)

10. Certify that the information given in this document is true, accurate and complete by signing and dating.

Signature of authorized representative	Title	Date
	V-P MFG	1-28-99

***** Below is for Department use only *****

11. Date received	County code	Priority	Generator Yes No	Small Generator Yes No	Special status
	54		Y	Y	

12. Date closed	TSDR status	Transporter status

13. Comments

1998 Offsite Shipping Report

For wastes shipped offsite only.

TND 00-332-8937 YY - - Chattanooga FO

ATHENS FURN IND INC BED & DIMENSION PLANT
Attn: JOE LAWSON
PO BOX 929
ATHENS, TN 37303

Please complete and return this form to following address:

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
Fifth Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1535

Also, complete this form when terminating business.
For technical assistance, call 1 (800) 237-7018 in Tennessee only.

2. Waste Streams or "FS"	DOT Shipping Name or Waste Name	EPA Waste Codes	Amount shipped in kilograms	Number of shipments	TSDR/Destination Facility Installation ID	Transporter Installation ID	TSDR Handling Codes
a. 1	WASTE FLAMMABLES LIQUID NOS UN 1993	D001 F003 F005	1925	2	ALD070513767	ALD070513767	T50/T16
b. 2	"	"	3325	2	"	"	"
c.							
d.							
e.							
f.							
g.							
h.							

3 Totals: Sum the two columns to the right.
Page totals: sum the following two columns
Final totals: sum all page totals on last page of report

5250	4

4. Certification: I certify that the above information is true, accurate and complete. (Sign by generator and give title and date.)

V-P MFG DATE: 1-28-99

CN-0779 (Rev. 11/94)

RDA 2203

Hazardous Waste Stream Report

Tennessee Department of Environment and Conservation, Division of Solid Waste Management
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please complete and/or correct, certify and return. Retain a copy for your records.

1. **Organization's full name** at facility	**Installation identification number**
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. **Waste name.** Use standard name from regulations whenever possible.	WASTE STREAM NUMBER
LACQUER THINNER & ACETON-MIXED SOLVENTS	1

3. Give the years that this waste has been generated, e.g. 1975, 1982-.	Date no longer generated. (MM/DD/YY)	Annual **Frequency** of generation
1950 → 1998		Continuous Accidental/ One time Various ____ (V)

4. Circle all appropriate **hazard criteria.** Ignitable (a), EP toxic (b), Corrosive (c), Reactive (e), Other toxic (f), TCLP (g). AF	EPA **waste codes.** (Primary first; six maximum.)	**SIC code** for generating process.
	F005, F003, D001	2511,

5. **Physical form** code	% Solid	% Water	Vol. to wt. conversion (pounds/gallon)	If used for fuel, chlorine content(PPM)	BTU per pound
Liq-Othr (3)	.0	.0	7.000	0.0	13,371.0

6. **Generation rates** in kilograms. Monthly maximum (kg)	Annual average (kg)	Maximum stored onsite (kg)	Maximum days stored
500.0	6,000.0	1,500.0	90

7. **DOT shipping** name	DOT hazard class		DOT ID code
SOLVENT WASTE FLAMMABLE LIQUID NOS	ORM-D	10	UN1993

8. Describe the **generation process.**

USED TO CLEAN EQUIPMENT AND "WASH OFF" DEFECTIVE FINISHES

9. **Chemical Characteristics.** pH	Flash point	Reactive code	**Concentration units.** Use PPM for TCLP and EP Toxic wastes % volume( ), % weight( ), PPM( ) ( )
6.7	<140		

Hazardous constituents. Give range of values at right.	lower value	upper value
A. ISOBUTYL ALCOHOL	5%	
B. METHYL ALCOHOL	5%	
C. ISOPROPYL ALCOHOL	10%	
D. ISOBUTYL ISOBUTYRATE	5%	
E. METHYL ETHYL KETONE	10%	

10. Describe how you have **managed** or intend to manage this waste **through final disposition.** Use the Waste Management Method Codes on page 6 of the instructions.

S01, T16, T50

Hazardous Waste Stream Report

Tennessee Department of Environment and Conservation, Division of Solid Waste Management
Fifth Floor, L & C Tower, 401 Church Street, Nashville, TN 37243-1535

Please complete and/or correct, certify and return. Retain a copy for your records.

1. **Organization's full name** at facility	**Installation identification number**
ATHENS FURN IND INC BED & DIMENSION PLANT	TND 00-332-8937

2. **Waste name.** Use standard name from regulations whenever possible.	WASTE STREAM NUMBER
STAINS & GLAZES MIXED	2

3. Give the **years** that this waste has been generated, e.g. 1975, 1982-.	Date no longer generated. (MM/DD/YY)	Annual **Frequency** of generation
1950- 1998		Continuous Accidental/ One time Various (Y)

4. Circle all appropriate **hazard criteria.** Ignitable (a), EP toxic (b), Corrosive (c), Reactive (e), Other toxic (f), TCLP (g).	EPA **waste codes.** (Primary first; six maximum.)	**SIC code** for generating process.
AF	D001, F003, F005	2511

5. **Physical form** code	% Solid	% Water	Vol. to wt. conversion (pounds/gallon)	If used for fuel, chlorine content(PPM)	BTU per pound
Liq-Othr (3)	.0	.0	7.000	0.0	12,000.0

6. **Generation rates** in kilograms. Monthly maximum (kg)	Annual average (kg)	Maximum stored onsite (kg)	Maximum days stored
490.0	5,800.0	3,000.0	180

7. **DOT shipping** name	DOT hazard class		DOT ID code
STAINS & GLAZES	ORM-D	10	UN1993

8. Describe the **generation process.**

OBSOLETE FINISHING MATERIALS FOR FURNITURE

9. **Chemical Characteristics.** pH	Flash point	Reactive code	**Concentration units.** Use PPM for TCLP and EP Toxic wastes % volume( ), % weight( ), PPM( ) ( )	
6.7	<140			
Hazardous constituents. Give range of values at right.			lower value	upper value
A. MIXED STAINS & GLAZES			1	30
B. W/F003 & F005 SOLVENTS & D001				
C. W/MINERAL SPIRITS				
D.				
E.				

10. Describe how you have **managed** or intend to manage this waste **through final disposition.** Use the Waste Management Method Codes on page 6 of the instructions.

S01, T16, T50

#1

11. Annual Generation and Handling Data: Complete blocks A to D as the formula A + B - C = D as expressed in kilograms (kg).

Report Year	A. Amount generated during year (kg)	B. Amount onsite Jan. 1 in temp. storage (kg)	C. Amount onsite Dec. 31 in temp. storage (kg)	D. Amount handled (kg)
1998	1925	0	0	1925

If the waste was shipped offsite, give total in block D1 and submit an Offsite Shipping Report. Report onsite handling in blocks D2 to D4. For all handling that requires a permit, use "T", "S", or "D" codes from the instructions. For other handling, use "H" codes.

	Total Handled OFFsite	TSDR handling/Waste management methods		Amount Handled ONsite	TSDR handling/Waste management methods
D1	1925 kg	T50/T16	D2	kg	
D3	Amount Handled ONsite: kg	TSDR handling/Waste management methods	D4	Amount Handled ONsite: kg	TSDR handling/Waste management methods

Hazardous Waste Reduction Data: See the instructions for detail information required for completing lines 12-15 below

12. Specify your actual hazardous waste generation and final reduction goal as ratios of hazardous waste generated to the item, service or intermediary produced in its standard production units.

This year's actual ratio	Goal year's ratio	Goal Year	If no numeric goal has been set, describe your efforts to set one in line 15 below.
.018	.015	1995	

13. Identify the **efforts** undertaken to reduce the volume and/or toxicity in the generation of this waste during the reported year. This includes the efforts undertaken in previous years that affected the reported year. The reduction effort relates to generation processes and not treatment methods. Circle the code for applicable efforts to the right of each description.

A. Reformulation/redesign of product	(A)	F. Reduction research/planning	(R)
B. In process recycling	(B)	G. No effort	(F)
C. Equipment/technology modification	(C)	H. Other - briefly explain here	(G)
D. Substituting raw materials	(D)		
E. Improved operations	(E)		

14. Rate the **helpfulness** of the items below that affected your hazardous waste reduction plan and its results. To the right of each item, circle one code: YES, this item helped reduction; NO, it hurt reduction; or NA, it was not necessary or did not affect reduction. See the instructions for further explanation.

A. Training or technical assistance	A(No NA (Yes))	G. High costs of haz. waste mgt	G(No NA (Yes))
B. Technical feasibility	B(No NA (Yes))	H. Accidental generation	H(No (NA) Yes)
C. Economic practicality	C(No NA (Yes))	I. Other - describe here:	I (No NA Yes)
D. Measurement/accounting methods	D(No (NA) Yes)		
E. TN hazardous waste regulations	E(No (NA) Yes)		
F. Implementation experience	F(No (NA) Yes)		

15. Narrative: if necessary, briefly provide more explanation of any of the above data that will show your efforts to reduce the generation of this hazardous waste or describe impediments to its reduction.

16. Certification: I certify that the information given on this form is true, accurate and complete.

SIGNATURE: (Generator or authorized representative)	TITLE:	DATE:
	V-P MFG	1-28-99

*** Below is for Department use only. ***

17. Date received (MM/DD/YY)	Complete? Yes No	Test results? Yes No	Reasonable? Yes No	Follow-up Yes No	Initials

Status: Not hazardous (1); Demonstrated not hazardous (2); Treatment Residue (3); Resource recovery (4); Partial exemption (5); Hazardous (6); Accidental (7); No longer generated (8), Variance granted (9); Conditionally exempt (A); Mixed radiological wastes(R); Corrective Action (C); Waste water Rx(W); Universal Waste (U)	Status	Further Reporting

18. Comments.

#2

11. Annual Generation and Handling Data: Complete blocks A to D as the formula A + B - C = D as expressed in kilograms (kg).

Report Year 1998	A. Amount generated during year (kg)	B. Amount **onsite Jan. 1** in temp. storage (kg)	C. **Amount onsite Dec. 31** in temp. storage (kg)	D. Amount handled (kg)
	3325	0	0	3325

If the waste was shipped offsite, give total in block D1 and submit an Offsite Shipping Report. Report onsite handling in blocks D2 to D4. For all handling that requires a permit, use "T", "S", or "D" codes from the instructions. For other handling, use "H" codes.

	Total Handled **OFF**site	TSDR handling/Waste management methods		Amount Handled **ON**site	TSDR handling/Waste management methods
D1	3325 kg	T50/T16	D2	kg	
D3	Amount Handled **ON**site kg	TSDR handling/Waste management methods	D4	Amount Handled **ON**site kg	TSDR handling/Waste management methods

Hazardous Waste Reduction Data: See the instructions for detail information required for completing lines 12-15 below

12. Specify your actual hazardous waste generation and final reduction goal as ratios of hazardous waste generated to the item, service or intermediary produced in its standard production units.

This year's actual ratio	Goal year's ratio	Goal Year	If no numeric goal has been set, describe your efforts to set one in line 15 below.
.031	.095	1995	

13. Identify the **efforts** undertaken to reduce the volume and/or toxicity in the generation of this waste during the reported year. This includes the efforts undertaken in previous years that affected the reported year. The reduction effort relates to generation processes and not treatment methods. Circle the code for applicable efforts to the right of each description.

A. Reformulation/redesign of product (A)
B. In process recycling (B)
C. Equipment/technology modification (C)
D. Substituting raw materials (D)
E. Improved operations (E)
F. Reduction research/planning (R)
G. No effort (F)
H. Other - briefly explain here (G)

14. Rate the **helpfulness** of the items below that affected your hazardous waste reduction plan and its results. To the right of each item, circle one code: YES, this item helped reduction; NO, it hurt reduction; or NA, it was not necessary or did not affect reduction. See the instructions for further explanation.

A. Training or technical assistance A(No NA Yes)
B. Technical feasibility B(No NA Yes)
C. Economic practicality C(No NA Yes)
D. Measurement/accounting methods D(No NA Yes)
E. TN hazardous waste regulations E(No NA Yes)
F. Implementation experience F(No NA Yes)
G. High costs of haz. waste mgt G(No NA Yes)
H. Accidental generation H(No NA Yes)
I. Other - describe here: I (No NA Yes)

15. Narrative: if necessary, briefly provide more explanation of any of the above data that will show your efforts to reduce the generation of this hazardous waste or describe impediments to its reduction.

16. Certification: I certify that the information given on this form is true, accurate and complete.

SIGNATURE: (Generator or authorized representative)	TITLE:	DATE:
	V-P MFG	1-28-99

*** Below is for Department use only. ***

17. Date received (MM/DD/YY)	Complete? Yes No	Test results? Yes No	Reasonable? Yes No	Follow-up Yes No	Initials

Status: Not hazardous (1); Demonstrated not hazardous (2); Treatment Residue (3); Resource recovery (4); Partial exemption (5); Hazardous (6); Accidental (7); No longer generated (8), Variance granted (9); Conditionally exempt (A); Mixed radiological wastes(R); Corrective Action (C); Waste water Rx(W); Universal Waste (U)

Status	Further Reporting

18. Comments.

Hazardous Waste Notification

INSTRUCTIONS FOR COMPUTER GENERATED AND BLANK FORMS

Below are instructions for Hazardous Waste Notification. For previous notification, review the data and mark any changes on the computer generated form. If you need extra copies, please photocopy the blank form before writing on it.

Complete this form for each site generating a hazardous waste in Tennessee. If a company owns multiple sites, describe each site and its wastes on a separate set of forms. Rule 1200-1-11-.01(2)(a) provides a definition of "onsite". Rule 1200-1-11-.03(1)(b) gives the procedures to determine if a waste is hazardous. Attach a completed Hazardous Waste Stream Report for each waste stream determined to be hazardous.

Each new generator of hazardous waste must submit this form within 90 days after the date of initial generation. Each generator is responsible for maintaining an up-to-date form by notifying the Division within 30 days of significant changes. Submit one copy of the applicable forms to the Division of Solid Waste Management, Fifth Floor, L & C Tower, 401 Church Street, Nashville, Tennessee 37243-1535.

Line 1: **Organization name** - Give the organization's full, legal name for this site to distinguish it from any other site the organization may own or operate in Tennessee. Supply your installation identification number. If no number is available, call the Division for instructions on how to obtain one. There is now a one-time application fee of $50.00 for a new number.

Line 2: **Mailing address** - Give a complete mailing address with zip code according to U. S. Postal Service standards for this site. Give the state code of TN for Tennessee or the two character postal abbreviation for any other state. Please supply the full 9 digit zip code if possible. Mail will be sent to the technical contact if supplied on line 6. This address will be used to mail the annual hazardous waste report forms. Carefully consider who should receive the mail and where it should be delivered to insure prompt delivery before any late penalties are assessed.

Line 3: **Site Address** - Give the full address which will aid the Division in going to this site. Do not give a P. O. Box number. Give the Tennessee county name in which the site is located. Give the latitude and longitude of the site by degrees, minutes and seconds. Latitude and longitude may be found by using U. S. Geologic Survey quadrangle maps.

Line 4: **Owner name** - Give the personal or corporate name and phone number of the immediate owner of the site. In Type, enter one of the following codes which best describes the owner type:

Private . . .	P	Indian . . .	I
Federal government . .	F	Municipal government . . .	M
State government . . .	S	Special District . . .	D
County government . . .	C	Other . . .	O

Line 5: **Manager name** - Give the name and phone number of the manager or person who is responsible for the direction of activities at the site. In Type, use the codes from line 4 above which best describes the manager type.

Line 6: Principal **technical contact** - Give the name and fax and phone number of the person who is knowledgeable about the hazardous waste generated at this site and who the Division may contact for further information if needed. The blank annual report package from the Division will be addressed to this person.

Line 7: Give the **number of employees** at this site. Enter the **year that operations began** at the site. Enter the four digit **primary Standard Industrial Classification** (SIC) code of the site. If additional SIC codes are known, please supply them. If your site operates as a job shop, as described in Rule 1200-1-11-.03(2)(e), circle "Yes" in the box with the caption "Job Shop".

Line 8: **Emergency contact** - Give the name, phone number and time the designated emergency contact may be called. The Division must be able to call 24 hours per day and 7 days per week regarding emergencies. Only one person should be designated for any time period. Enter only one phone number per line. If additional space is needed, attach a separate sheet and identify the information with the form name and line number.

Line 9: a. Check the yes box if you **receive RCRA hazardous waste from offsite and recycle it.**
b. Check the yes box if you **recycle RCRA hazardous waste from onsite.**

Line 10: **Certification** - After all documents have been compiled for submission to the Division, the manager or owner responsible for the site must sign, give their title and the date signed. The certification must be made by one who is authorized to legally bind the company as when signing contracts.

Lines 11 to 13 are for **Department use only!**

1998 Offsite Shipping Report

For wastes shipped offsite only.

INSTRUCTIONS

Summarize your **offsite** shipments of hazardous wastes in 1998. This information must be obtained from, and accountable to, your hazardous waste manifest copies returned by the TSDR. You and your TSDR must reconcile any manifest differences and report only the mutually corrected amounts or else file manifest discrepancy reports. Document the reasons for any corrections by using TSDR analyses, actual weights from scale receipts, manifest changes, etc.

Complete one line for each combination of initial transporter and TSDR who handled a waste. If no shipments at all were initiated in 1998, write "No Shipments" in the DOT Shipping Name of line 2a and certify the report. If some wastes were shipped offsite, but others were not, omit those that were not shipped offsite.

Page _____ of ____ - Number each page in the space provided on the upper right side of the report.

Waste Streams or "FS" - Enter the source of the waste as the waste stream number from your Hazardous Waste Stream Report forms. For mixtures, enter as many numbers as appropriate. If the waste is being shipped directly from your RCRA permitted storage, enter "FS" (From Storage).

DOT shipping name/waste name - Enter only one of either the DOT shipping name or a descriptive waste name. Enter each different waste or waste combination on a separate line. Enter various mixtures of the same constituent wastes on the same line unless the hazard characteristics of the resultant mixtures are different.

EPA waste codes - Enter the applicable hazardous waste code(s) which identifies the waste or combination of wastes. See Rules 1200-1-11-.02(3) and (4) for the EPA waste codes. (For example, F001, K001, D001.)

Amount shipped (in kilograms) - Enter the amount of wastes in kilograms that you shipped during the reporting year to the specified TSD facility by the specified transporter. Use the Total Quantity (Item 13) from the Manifest after converting it to kilograms. The weight reported should include the weight of the drum unless you know that the waste will be removed from the drum and the drum will not be handled as a hazardous waste. For generators, this amount should match the total of lines 11D1 of the Waste Stream Reports that are included on this line. For TSDR's, it should match the lines on the Summary Report with the word "SHIPPED" in the handling column.

For conversion, 2.2 pounds equals one kilogram. Convert volume into weight in kilograms taking into account the appropriate density or specific gravity of the waste. For example, water weighs 8.34 lbs./gallon. A full 55 gallon drum of hazardous wastewater with a specific gravity of 1.02 should be reported as 55 gallons * 1.02 * 8.34 lb./gal ÷ 2.2lb./kg. = 212.67 or 212.7 kg.

Shipment - Enter the number of separately manifested shipments during the reporting year for each line completed.

TSDR ID number - Enter the Installation Identification Number of the treatment, storage or disposal facility/destination facility to which the waste was shipped. Enter only one number.

Transporter ID number - Enter the Installation Identification Number of the initial transporter who picked up the waste. Enter only one number.

Handling codes - Use the codes shown on page 6 of the instructions for the Hazardous Waste Stream Report. Enter the **TSDR Handling Codes** that most closely represent the techniques you contracted to be used at the facility that **received** this waste. Enter all codes that are applicable in the order of handling of the waste. Use only the TSDR Handling Codes and not the Waste Management Codes.

Totals - Sum the amount shipped and the number of shipments for each page and record the total of all pages on the last page.

Certification - The generator must sign the report and include the title and date signed. The certification must be made by one who is authorized to legally bind the company as when signing contracts.

Hazardous Waste Notification

Tennessee Department of Health and Environment, Division of Solid Waste Management.
Customs House - Fourth Floor, 701 Broadway, Nashville, Tennessee 37219-5403

1. Organization's full, legal name	EPA identification code
Athens Furniture, Inc. Bed Plant	TN D003328937

2. Mailing address	City	State abbrev.	ZIP code
P.O. Box 929	Athens	TN	37303

3. Physical location or address	County name
10 Matlock Road Athens Bed Plant	McMinn

4. Owner name	Phone with area code
DWG Corporation	

5. Manager or operator name	Phone with area code
Troy Dobson	615-745-1833

6. Principal technical contact	Phone with area code
Joe Lawson	615-745-1833

7. Number of employees	Year operation began	SIC codes (Primary SIC first, etc.)	Job shop
198	1946	2511	Yes No X

8. Emergency contacts for 24 hours per day and 7 days per week

	Name	Time period covered	Phone with area code
a.	Joe Lawson	All	615-745-1833
b.	Troy Dobson	All	615-745-1833
c.			
d.			

9. Current environmental permits for air, water, and radiological permits. Give permit type, number and expiration date. In a range of related permits, summarize by giving the first and last permit number.

Air only

10. Certify that the information given in this document is true, accurate and complete by signing and dating.

Signature of authorized representative	Title	Date
Joe Lawson	Pur. Agent	1-20-88

Below is for Department use only.	11. Date received	County code	Priority	Generator	Small Generator	Special status
				Yes No	Yes No	

12. Date closed	Date regulated	Date deregulated

13. Comments

Hazardous Waste Stream Report

Tennessee Department of Health and Environment, Division of Solid Waste Management.
Customs House - Fourth Floor, 701 Broadway, Nashville, TN 37219-5403

1. Organization's name.	EPA identification code
Athens Furniture, Inc. Bed Plant	TN D003328937

2. Waste name. Use standard name from regulations whenever possible.	Waste Stream ID code
Lacquer Thinner	

3. Give the years that this waste has been generated, e.g. 1975, 1982-1984.	Frequency of generation
Unknown	Continuous Accidental (Vario

4. Circle all appropriate hazard criteria below.	EPA waste codes. (Primary fir
(Ignitable (a)) EP toxic (b), Corrosive (c), Reactive (e), (Other toxic (f))	F005

5. Physical form	Percent solid	Volume to weight conversion (pounds per gallon)
Liquid	None	7.03 15.47 kg

6. Generation rates. Supply all rates in kilograms. Monthly maximum	Annual average	Maximum amount stored onsite	Maximum days store
65 (kg)	780 (kg)	330 (kg)	90

7. DOT shipping name	DOT hazard class	DOT ID code
Lacquer Thinner	Red Lab #1	UN 1263

8. Describe generation process.

Used to clean equipment

*** ANNUAL REPORT SECTION *** Complete at end of each year and when terminating business for a waste w requires notification. Continue with line 12.

9. Annual generation and handling data. If waste was shipped off-site, also sumbit Annual Shipping Report f hazardous waste generators. If waste was handled on-site in a permitted facility, use "T", "S", or "D" codes from instructions. Otherwise, use "H" codes from instructions.

Report Year	Amount generated during year (kg)	Amount on-site on first day of year (kg)	Amount on-site on last day of year (kg)	Waste management methods or TSDF handling codes

10. Describe the efforts undertaken to reduce the volume and toxicity in the generation of this waste durin the reported year. This reduction refers to generation processes and not treatment methods.

Pt penalty involved

11. Describe changes in volume and toxicity that those reduction efforts described in line 10 produced last compared to previous years since 1984.

12. Chemical Characteristics.

pH	Flash point	Wastes, indicate PPM. % volume, % weight, PPM
7.0	20° F	

Major and hazardous consituents. Give range of values at right.		lower value	upper value
a. Lactol Spirits	13.0%	13.0%	
b. 2- Butoxyethanol	1.1%	1.1%	
Isobutyl Acetate	21.3%	21.3%	
c. Isopropanol	5.5%	5.5%	
d. 2 Butanone	5.4%	5.4%	
e. Toluene	53.7%	53.7%	

13. Describe storage, treatment, and disposal methods using codes in the instructions.

Treatment codes	Storage codes	Disposal codes	Location
	S01	D84-H09 Burn in boiler for energy resource recovery	(Onsite) offsite

14. Identify all transporters and TSDF operators involved in handling this waste.

Name and address	EPA identification code
None	

15. Certification: I certify that this information is true, accurate and complete.

SIGNATURE: (Generator or authorized representative)	TITLE:	DATE:
Joe Lawson	Pers. Agent	1-20-88

Below is for department use only.

16. Date received (MMDDYY)	Complete? Yes No	Test results? Yes No	Reasonable? Yes No	Follow-up Yes No	Initials

Status: Not hazardous (1); Demonstrated not hazardous (2); Small generator (3); Resource recovery (4); Partial exemption (5); Hazardous (6); Accidental (7); No longer generated (8); Variance granted (9); Conditionally exempt (A).

Stat code

17. Comments.

Reference 7

Tennessee Department Environment and Conservation
Tennessee Division of Air Pollution Control

Annual Inspection
11-16-94

TENNESSEE DIVISION OF AIR POLLUTION CONTROL
ANNUAL INSPECTION

Reference # : 54-0131
EPA Class : T-5C
Pollutant(s) : PT,HC
Date Inspected : 11-16-94

Environmental Specialist : JDK
Route To : KLC

Company : Athens Furniture Industries (Dimension Plant)
Address : P.O. Box 929
City/State/zip : Athens, TN 37371-0929

Company Contact : Joe Lawson, Eric Horton
Phone : 745-2441

Does Company impact on additional control area? : no
Pollutant type : PT,HC

Does Company have PSD? no NSPS? no NESHAPS? no
Sources :

Is Company in compliance? : yes
Are current emission fees paid? : yes

Environmental Protection Specialist Accompanying the Inspector : none
Total time required for the inspection (hours) : 20

EXECUTIVE SUMMARY:

On November 16, 1994, Athens Furniture, Inc. (Dimension Plant) was visited in order to conduct a Title V Annual Inspection. A walk-through of the facility was conducted with Eric Horton and Gary Cooper.

This facility is set up much the same way as the Occasional Plant of Athens Furniture (54-0001), which was inspected last month. All of the wood waste generated at the plant eventually ends up in the boiler. All the wood waste goes through one of two Pneumafill baghouses through a closed cyclone (no vent), into a storage silo, and then to the boiler. The cyclone on top of the storage silo is completely closed and all the wood waste that enters from the Pneumafills goes through this cyclone into the storage silo by simple gravity-drop. The boiler is belt-fed rather than auger-fed and it runs 24 hrs/day. It was operating on November 16 at approximately 91 psi of steam. A VEE was taken and no violation was found.

There is no assembling done at this plant. Only cutting and shaping are done here. There are several pieces of equipment that feed the Pneumafills. Feeding Pneumafill #1 via 2 pipelines are 2 cut-off saws, 2 chop saws, 7 rip saws (4 operating 11/16), 1 gang-rip saw, 2 tenoners, 1 A and B shaper (nio), 1 molder, 2 planers, 1 wide-belt sander, 1 cleat machine, 1 re-saw (nio), 2 variety saws (nio), 1 pump drum sander, 2 boring machines, 1 nose sander, and 2 bed-lock machines (1 operating 11/16). Feeding Pneumafill #2 via 2 pipelines are 2 nash sanders, 1 molder, 1 band saw, 1 dry router, 5 lathes (4 operating 11/16), 2 C and C routers, 2 floor sweeps, 1 trim saw, and 1 yard planer. The yard planer can also be diverted to the silo at the Bed Plant (54-0014). There is also one hog that goes to the silo.

The facility has permits for 3 spray booths. Currently, only one spray booth is located at the facility and it was not operating on 11/16. The other two booths have not operated for at least 3 years according to plant personnel. In fact, they have been dismantled, and one has been moved to the Bed Plant. In the

existing booth, very little spraying is done. The average time of spraying when the booth is used is approximately 3 hours. The permit for the booth does require logs, and these logs were available and obtained. As the logs show, the booth is used very seldom.

There is not as much to this facility as there is at the other two Athens Furniture facilities. The only other item to be addressed at this plant is the burn pit located beside the facility. All the wood scraps too large for the baghouses are dumped in the pit and burned. Over the past two years, no complaints have been filed concerning the open burning. Since only wood is burned, no permit is required.

The current fee letter is enclosed. Emission fees have been paid by check, and a copy of the check is enclosed.

After completion of the inspection, Athens Furniture Industries (Dimension Plant) was found to be operating in full compliance with the regulations of the Tennessee Division of Air Pollution Control.

Jeff Kent
Environmental Specialist

VEE Certification number: 1490
Certification expiration date: 3/27/95

Reference 8

Athens Furniture Industries, Inc.

Leak/Spill Report
January 6, 1998

CFO file #54-10

ATHENS® FURNITURE INDUSTRIES, INC.

P.O. Box 929 • Athens, Tennessee 37371-0929 • (615) 745-1833

January 6, 1998

Tenn. Dept. of Environment and Conservation
Solid/Hazardous Waste Division
540 McCallie Avenue
Chattanooga, TN 37402-2013

Attention: Ms. Lynne Koby

Re: Report of Leak/Spill

We wish to report a leak/spill of approximately 1000 gallons of furniture finishing sealer material which occurred during the plant holiday period and was not discovered until startup on January 5, 1998.

The leak was in an underground transfer pipe near a concrete tile which allowed the material to flow into an open concrete ditch (approx. 210' long) running between two buildings. The sealer is a high solid/low HAPS material containing over 22% solids (mostly nitrocellulose and sanding agents) with the balance being a mixture of various solvents including a small amount of VHAPS.

We believe the volatile materials evaporated during the slow flow in the ditch before the material entered an open dirt drainage area leading away from the building alongside a railroad track.

Immediately upon discovery of the leak, the pipes were turned off and cleanup operations commenced. After consulting with three technical representatives of our finishing material supplier, it was decided to simply pick up the remaining residue. The

white solidified residue was shoveled up and placed into 55 gallon drums for proper disposal.

Since this is the same "special waste" that is generated from our spray booth cleaning operations, we plan to burn it in our wood fuel boilers. Our boiler air pollution permit allows this material to be burned as supplementary fuel.

The vast majority of the residue was picked up before dark on Monday, January 5, 1998, the day of discovery. The balance of the cleanup operation should be completed by the end of business Friday, January 9, 1998. All remaining material in the leaking pipe will be gravity drained into a drum for future use in the finishing operation.

If you require further information, please contact Joe Lawson at (423)745-2441, Ext. 113.

The site address of the leak is:

1241 Frye Street (P. O. Box 929)

Athens, TN 37303

Respectfully,

Joe Lawson
Environmental Mgr.

Reference 9

Tennessee Department of Environment and Conservation
Division of Geology

Bulletin 61
Nashville, Tennessee 1959, reprinted 1993

Division of - superfund

STATE OF TENNESSEE

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

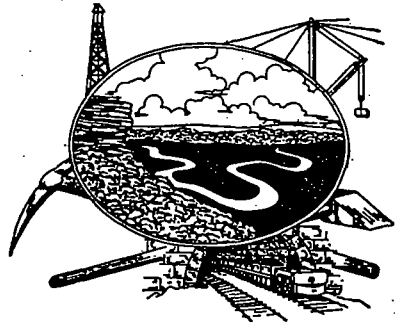
DIVISION OF GEOLOGY

BULLETIN 61

GEOLOGY, MINERAL RESOURCES, AND GROUND WATER OF THE CLEVELAND AREA, TENNESSEE

BY

GEORGE D. SWINGLE



Prepared in cooperation with the U.S. Geological Survey

NASHVILLE, TENNESSEE

1959

REPRINTED 1993

layers. Glauc occurs at several horizons, and thin beds of richly glauconitic sandstone have been observed. Much of the sandstone is silty, and in places lenses of sandy shale are present. Weathered sandstone blocks are heavily iron stained and are typically colored reddish brown.

Siltstone beds constitute a large portion of this unit. These occur in thick beds or as laminae associated with shaly zones. The colors of individual beds differ, but brown, red, and green are most common. Thin beds of green clay shale are present locally, but these constitute a very minor portion of the unit.

Lack of continuous exposures prevents accurate measurement of the thickness of this member. Close folding and minor faulting, observable in most outcrops, suggest that duplication of beds is common. The maximum thickness of this member in the Cleveland area is believed to be about 300 feet. Variations in the width of outcrop belts and apparent changes in lithology suggest that the unit is slightly thicker in the western part of the area, but the apparent thickening may be due to structural duplication of beds.

The resistance of the sandstone beds to weathering, and the usually steep dip of the unit, give rise to distinctive topography. The low ridges produced by weathering generally reflect accurately the changes in structural trends. The upper and lower boundaries of the member are normally marked by abrupt breaks in topography. Soils overlying the member are shallow and acidic and contain abundant fragments of shale, siltstone, and sandstone. Natural exposures are poor, even along the steep ridges, and the presence of this member is indicated solely by sandstone float and topographic expression.

Conasauga Group

The term Conasauga was used by Hayes (1891, p. 143) and Walcott (1891, p. 304) to designate argillaceous shales containing numerous lenses and thin beds of limestone in Whitfield and Murray Counties, Ga., near the Conasauga River. Smith (1890) called approximately equivalent rocks the Coosa and Flatwoods shales, and Safford (1856) called them Knox shales. Northward from the type area, limestone units in rocks of equivalent age become more persistent and the formations shown below are recognized.

Formations of the Conasauga group in northern East Te ee

Name	*Type locality*	*Age*
Maynardville limestone	Maynardville, Union County	Late Cambrian
Nolichucky shale	Nolichucky River, Greene County	
Maryville limestone	Maryville, Blount County	Middle Cambrian
Rogersville shale	Rogersville, Hawkins County	
Rutledge limestone	Rutledge, Grainger County	
Pumpkin Valley shale	Pumpkin Valley, Hawkins County	

Rodgers and Kent (1948, p. 7-8) cite faunal and lithologic evidence from areas to the north for extending the original lower boundary of the Conasauga downward in the section to include a shale sequence (the Rome shale of older reports) ordinarily included in the Rome formation of earlier workers. To avoid confusion in terminology Rodgers and Kent assigned the name Pumpkin Valley shale to those lower beds. The upper boundary of the original Conasauga has been shifted higher in the section (Rodgers and Kent, 1948, p. 11-12) to include the Maynardville limestone named by Oder (1934), who considered it the lowest unit of the Knox dolomite as used by him.

In this report the Conasauga group includes all units between the Rome formation (Rome sandstone of Hayes and Keith) and the top of the Maynardville limestone. This group in the Cleveland area has features intermediate, in part, between the well-defined shale-limestone sequence to the north and the argillaceous beds to the south. The youngest formation of the group, the Maynardville limestone, has insofar as determinable, rather similar features throughout the area. Older units change in character from the southeasternmost belt (the strike belt of the type locality) across belts to the northwest. Variations in lithologic facies of the Conasauga group are shown diagramatically on figure 2.

Faunal evidence indicates that the Pumpkin Valley shale (Rodgers and Kent, 1948) and the Rutledge, Rogersville, and Maryville formations (Resser, 1938) are of Middle Cambrian age. The Nolichucky and Maynardville formations are of Late Cambrian age (Resser, 1938; Oder, 1934). In the Cleveland area the Middle-Upper Cambrian boundary is apparently not everywhere marked by a prominent lithologic break such as exists in areas to the north. Dolomite beds believed to be approximately of early Nolichucky age are present in some belts, and the base of these beds is believed to mark the approximate Middle-Upper Cambrian boundary.

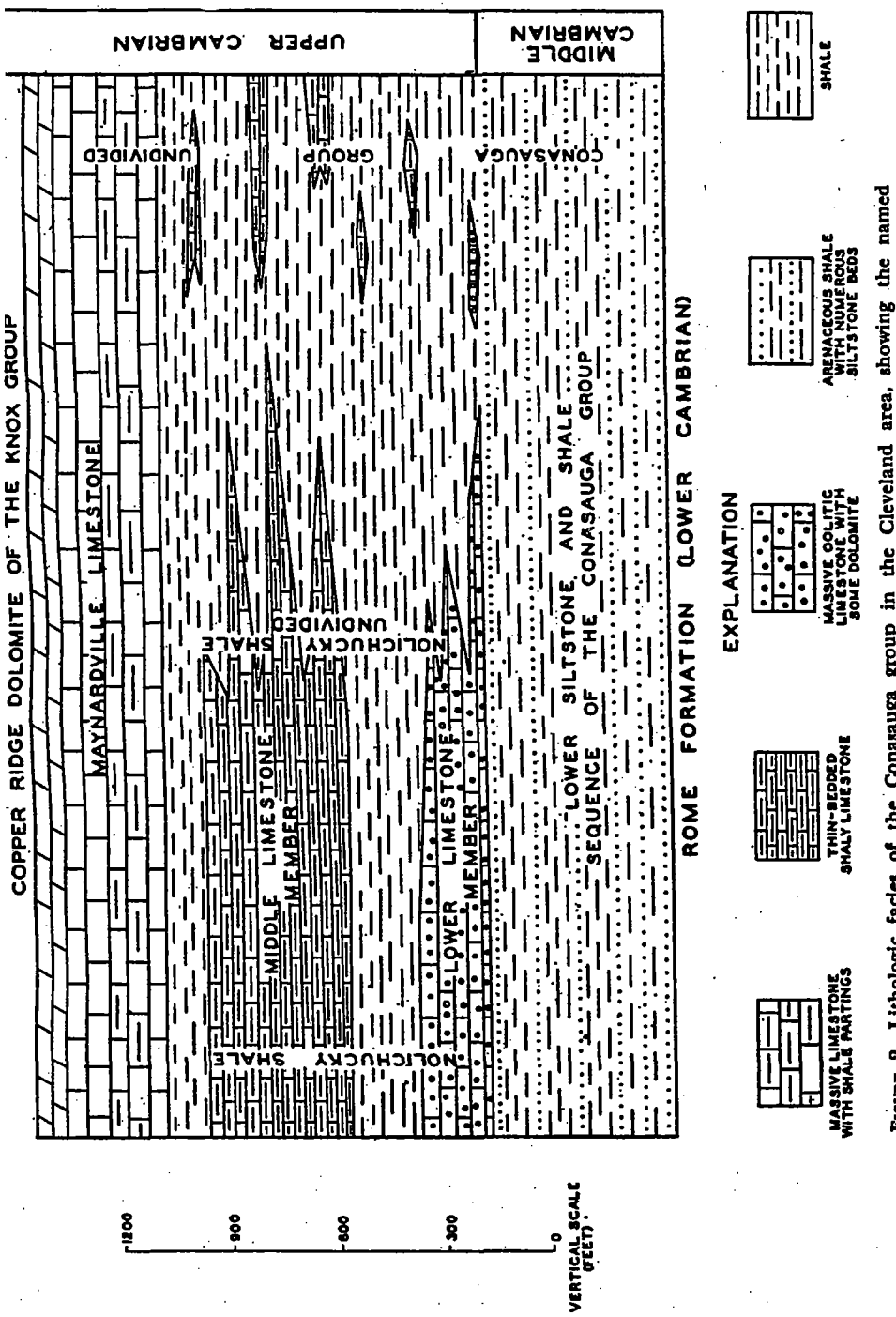


FIGURE 2.—Lithologic facies of the Conasauga group in the Cleveland area, showing the named subdivisions used on the geologic maps (pls. 1-4).

BELT SOUTHEAST OF THE KNOXVILLE FAULT

Rocks of the Conasauga in this belt are divisible into two mappable units, (1) a lower shale and limestone sequence designated the lower siltstone and shale sequence and the Nolichucky shale, undifferentiated, of the Conasauga group and (2) the overlying Maynardville limestone. It is possible that the rocks below the Maynardville could be subdivided into a lower siltstone unit equivalent to the lower siltstone and shale sequence of the Conasauga in the belts to the northwest and an upper limestone and shale unit equivalent to the Nolichucky shale. Widespread faulting, intricate folding, the absence of distinctive marker horizons, and poorness of outcrop, however, would make such a subdivision a formidable task.

LOWER SILTSTONE AND SHALE SEQUENCE OF THE CONASAUGA GROUP AND NOLICHUCKY SHALE, UNDIFFERENTIATED

Exposures of the lower silty rocks of the Conasauga are numerous in the belt that lies east of the Pumpkin Center and Chatata Valley synclines. These rocks were originally mapped by Hayes as Rome. The slightly higher topography east of the Chestuee fault marks the approximate position of the silty beds.

Alternating beds of siltstone, 1 to 4 inches thick, and sandy shales typify the lower silty beds of the Conasauga. These beds are remarkably uniform in appearance over wide areas, being easily recognized by their drab-olive-green, brown, and slightly reddish colors. Clay shales are present, but these constitute a minor portion of the lower silty sequence. Some thin beds or lenses of dark-colored limestone and dolomite are present. In local areas these beds are oolitic or conglomeratic. Secondary veinlets of white calcite commonly are present along fractures.

The thinly bedded siltstones and shales grade upward into clay shales, and nodules, lenses, and thin beds of blue argillaceous limestone. Pastel shades of pink and green, and a decrease in silt, characterize these upper beds. The limestone lenses are much lighter in color than those lower in the Conasauga and are also more persistent along the strike. In the upper beds of the Conasauga just below the Maynardville limestone, the light-green and yellow clay shales are remarkably free from siltstone beds.

Structural conditions and scarcity of exposures make it impossible to determine the thickness of the lower siltstone and shale sequence and the Nolichucky shale, undifferentiated, in this belt. It is estimated, however, that the thickness of the unit is less than 1,000 feet. Outcrop widths suggest that the lower silty beds are thicker than the overlying shales and limestones.

Limestone beds in the upper part of the Conasauga below the Maynardville are believed to be more common than exposures indicate. Weathering removes the soluble carbonate minerals from the argillaceous limestone, and the shaly material remains in the soil. The soil thus produced, together with creep from nearby weathered shale beds, resembles the residual materials normally produced by weathering of calcareous shale. In the absence of outcrops it is difficult to trace the limestone beds through the residuum. A marked topographic break, however, generally occurs at the contact between the lower silty beds and the overlying shales and limestones. Resistance of the numerous siltstone beds to erosion produces a characteristic low, knobby topography. The more calcareous upper beds underlie shallow, rolling valleys.

Maynardville limestone

The Maynardville limestone (Oder, 1934) is excluded from the Knox group because of its lithologic similarity to the other limestones in the Conasauga group, and because of the absence of chert, chert being characteristic of the overlying Knox. The lower boundary is placed at the base of the lowest massive limestone bed in the upper part of the Conasauga group. Thin shaly zones may be present above the lower limestone, but these do not exceed 1 to 6 feet in thickness. The upper boundary is drawn at the base of the lowermost massive dolomite bed of the overlying, locally asphaltic, dolomite sequence. The upper boundary in the residuum is marked by the presence of abundant chert which weathers from the Copper Ridge dolomite; in some areas it is marked by a tripoli zone consisting of several beds as much as 6 inches thick.

The Maynardville is a massive blue argillaceous limestone in the lower part and thinly bedded light-gray dolomite in the uppermost portion. In weathered exposures the lower limestone has a ribboned appearance produced by abundant shaly partings. Fine-grained to coarsely crystalline limestone is present, grading upward into dolomitic beds. Light-tan crystalline dolomite laminae alternate with light- to dark-gray silty limestone laminae in the uppermost portion of the formation. The term "straticulate" has been used to describe this laminated limestone and dolomite. Above the straticulate beds, gray silty dolomite is present in beds 1 to 3 feet thick.

In the southeasternmost belt (in Polk County) the upper dolomite beds are apparently replaced by blue limestone. In that area, however, exposures are so scarce that little is known of the Maynardville or of the overlying Copper Ridge.

Northwest of the Polk County belt the Maynardville is about 350 feet thick. The upper dolomite portion appears to be 50 to 75 feet thick and the underlying limestone, 275 to 300 feet.

Rocks of the Maynardville weather readily and outcrops are uncommon. In many areas exposures are limited to one or two per mile, and in some areas they are even less abundant. Where outcrops are lacking, a generally chert-free orange-red soil indicates the position of the formation. Steeply dipping beds give rise in many areas to a row of low hills that stand higher than the valleys underlain by the lower siltstone and shale sequence and the Nolichucky, undifferentiated, of the Conasauga. Slopes of these hills generally are covered with colluvial materials from the overlying Knox, and the precise position of the Maynardville is difficult to ascertain.

BELT BETWEEN THE KNOXVILLE AND SALTVILLE FAULTS

The Conasauga group in this belt is composed of three mappable units, (1) a lower siltstone and shale sequence, (2) overlying clay shales and limestones, and (3) the Maynardville limestone. The limestones and shales overlying the silty beds are believed to be approximately equivalent to the Nolichucky shale and are designated Nolichucky (Ɛn), although the lower beds may not be entirely correlative with the Nolichucky in its type locality.

North of Cleveland, in Walker Valley, all three of these units of the Conasauga are present. Exposures are poor, and the section is pieced together from scattered outcrops.

Lower siltstone and shale sequence of the Conasauga group

The contact between the lower siltstone and shale sequence of the Conasauga and the underlying Rome formation is easily established along the east side of Mouse Creek Ridge north of Cleveland. Although bedrock exposures are infrequent, the contact is located by the pronounced topographic break between the high knobs underlain by sandstones of the Rome and the lower hills underlain by siltstone and shale. The upper boundary of the lower silty sequence is also indicated topographically by the transition from the low hills, underlain by silty beds, to the gentle valleys formed on the shale and limestone beds. Near Anstis Lake, 3 miles north of Cleveland, outcrops of coarsely oolitic limestone suggest that limestone beds occur in the upper part of the lower siltstone and shale sequence of the Conasauga; however, outcrops of similar limestone were not observed along the strike.

The lower silty beds of the Conasauga in this belt consist of thinly bedded siltstones and sandy shales that are quite similar to beds at the same stratigraphic position in the area southeast of the Knoxville fault. In this belt the coloration of the beds is somewhat more pronounced. In addition to the drab-brown and olive-green beds to the southeast, red and purple layers are quite common.

As in other areas, the exact thickness of the lower siltstone and shale sequence of the Conasauga is impossible to determine. It is believed, however, that the unit does not exceed 600 feet in thickness.

Nolichucky shale

Locally, the rocks between the lower silty beds of the Conasauga group and the Maynardville limestone may be subdivided into shale and limestone units. One such area is southeast of Anstis Lake. From scattered outcrops in this area the following sequence of beds appears to be present: (1) A lower zone of oolitic and massive blue limestone overlying the lower siltstone and shale sequence of the Conasauga. The thickness of this limestone is unknown but is estimated to be about 50 feet. (2) Greenish clay shale with a few thin beds of siltstone. The thickness of this unit is not known. (3) Massive to thinly bedded blue argillaceous limestone, of unknown thickness, which resembles the Maynardville limestone. (4) Greenish-yellow clay shale extending upward to the base of the Maynardville. The thickness of this shale is about 100 feet. In contrast to those in the belt southeast of the Knoxville fault, the limestone beds in this belt are more massive and probably are more continuous. The pattern of outcrops in Blue Springs Valley suggests that a continuous limestone zone is present near the middle of the Nolichucky shale.

Maynardville limestone

The Maynardville in the belt between the Knoxville and Saltville faults is quite similar lithologically to the Maynardville southeast of the Knoxville fault. Exposures are very poor in the belt east of Blue Springs Valley south of Cleveland. North of Cleveland in the same belt, outcrops are somewhat more abundant. The thickness of the formation in this belt appears to be about 400 feet.

BELTS NORTHWEST OF THE SALTVILLE FAULT

The Conasauga group is subdivided in the northwest belts into the following units: (1) the lower siltstone and shale sequence of the Conasauga group (Ecl), (2) a lower limestone member at the base of the Nolichucky shale (Enl), (3) an overlying clay shale, the lower shale member of the Nolichucky, which is included in rocks designated as En, (4) a limestone unit, the middle limestone member of the Nolichucky, which appears to occur near the middle of the Nolichucky (Enm), (5) an upper shale member at the top of the Nolichucky (En), and (6) the Maynardville limestone (Emn). Although each of the above units may be recognized and mapped in local areas, scarcity of exposures prevent their differentiation in most places. Units 3 and 4 are mapped separately

only in the fault block northwest of Cleveland on the east side of the Beaver Valley fault and elsewhere are included in En. Unit 2, although probably more persistent than is indicated on the geologic maps, is mapped only along certain strike belts.

Fossils from the rocks of the Conasauga in this area indicate that the sequence including the beds from the base of the lower limestone member of the Nolichucky (Enl) up to the top of the Conasauga group is of Late Cambrian age. Allison R. Palmer, U. S. Geological Survey, has identified the fossils discussed below.

Llanoaspis occurs in the beds mapped as the middle limestone member (Enm) of the Nolichucky. This fossil was collected a quarter of a mile north of U. S. Highway 11 and 64 along Candies Creek west of Cleveland. About 1 mile north of this highway, along the eastern bank of Candies Creek, specimens of *Norwoodella, Kormagnostus, Ankoura,* and *Armonia* were collected. These forms occur in beds mapped as the Nolichucky shale. However, the coarse oolitic dolomite in which the fossils occur is evidently the lower limestone member of the Nolichucky shale (Enl). This unit has probably been brought up along a small thrust fault, but because of the lack of exposures the fault is not mapped. Approximately 2½ miles southwest of the above locality, near Johnson School, specimens of *Acmarachis, Holcacephalus, Norwoodella, Norwoodia, Millardia, Kormagnostus, Ithycephalus, Kingstonia, Syspacheilus,* and *Tricrepicephalus* were collected. The rocks in which these fossils occur are mapped as the lower limestone member of the Nolichucky shale (Enl).

The latter two collections indicate that the beds in which the fossils occur are equivalent in age to the lower part of the Nolichucky shale. For this reason the Middle-Upper Cambrian boundary is tentatively placed between the rocks mapped as lower siltstone and shale sequence of the Conasauga group (Ecl), and the lower limestone member of the Nolichucky shale (Enl).

Lower siltstone and shale sequence of the Conasauga group

In the northwestern belts this unit is characterized by more numerous and thicker siltstone beds and by richer and darker colors than the equivalent rocks in belts to the southeast. Sandstone beds as thick as 4 inches occur in the lower portion of the unit, and a few siltstone beds as thick as 6 inches are present. The brown and drab colors so typical of this unit to the southeast are replaced in part by dull purple, maroon, and reddish colors in this area, giving the unit a generally darker color. The upper boundary is placed at the base of massive coarsely oolitic limestones and dolomitic limestones. Where the limestones are absent

or not exposed. The contact is placed where the silty beds grade upward into clay shales containing only a small percentage of siltstone.

Topographic expression is commonly the basis for determining the location of the lower silty beds of the Conasauga. The unit gives rise to low hills, which are higher than those developed on the overlying units, but which are less conspicuous than the ridges of the Rome.

The lower siltstone and shale seems to be slightly thicker here than in the belts to the southeast; however, accurate determination of its thickness is impossible because of structural conditions.

Lower limestone member of the Nolichucky shale

Exposures of this limestone are present in each belt between the Saltville and Whiteoak Mountain faults. The lower boundary of the limestone is placed at the top of the underlying siltstone and shale sequence. Although siltstone beds locally occur above this limestone, they are in general less abundant and less massive. The top of this unit is not so clearly defined. It is probable that the upper boundary is gradational, there being scattered beds or lenses of limestone in the overlying shale. For this reason, the top of the unit is indicated on the geologic map as gradational.

The presence of coarsely oolitic and often conglomeratic beds of limestone and dolomitic limestone typify this unit. Brown oolites 2 millimeters and larger in diameter are ordinarily present in each exposure. Tabular lenses of dolomite a few inches long are common in many beds. The limestone is generally argillaceous and ranges in texture from dense to coarsely crystalline. Blue-gray and tan colors are most common.

Outcrops of this lower limestone are plentiful in some areas. Elsewhere, only a few outcrops per mile are present. For this reason the unit, although probably present, is not mapped in several areas. In the broad valley west of Candies Creek Ridge it is not possible to trace the unit because of limited exposures. Widely scattered outcrops suggest that the unit is present, but the beds are complexly folded and faulted in that valley.

The thickness of the lower limestone member is estimated to be about 200 feet, but locally it may be much thinner.

Lower shale member of the Nolichucky shale

Shale beds which overlie the lower limestone member of the Nolichucky shale are well exposed in the area northwest of Cleveland and east of the Beaver Valley fault. In this area the base of the lower shale member is concealed by faulting, and the upper boundary is marked by

beds of the overlying middle limestone member of the Nolichucky shale. Elsewhere northwest of the Saltville fault scattered exposures of this unit are present, but lack of outcrop prevents their being mapped as a separate unit.

Thin beds of blue argillaceous limestone less than 10 feet thick occur in this interval. These beds are lithologically quite similar to other limestones of the Nolichucky. The shale is predominantly a clay shale, commonly light brown and green but in places pink. Scattered beds, generally less than 1 inch thick, of brown siltstone occur. Lithologically, this shale is similar to the shales underlying the Maynardville limestone.

Like that of other incompetent formations in this area, the thickness of this unit cannot be determined.

Middle limestone member of the Nolichucky shale

In several areas, such as west of the Lee Highway where it crosses Candies Creek Ridge and east of the Beaver Valley fault northwest of Cleveland, thick beds of massive blue limestone occur in the Conasauga. These beds are underlain by the lower shale member of the Nolichucky shale, discussed above, and are overlain by the shale beds that occur below the Maynardville limestone. Only in the area east of the Beaver Valley fault has this limestone sequence been mapped as a unit, and here the top of the limestone is concealed by faulting. Outcrops of similar limestone at the same stratigraphic horizon in other belts indicate that the limestones at this horizon are continuous. Lack of sufficient exposures, however, prevents their being mapped separately from the rest of the Nolichucky.

This limestone is lithologically similar to the lower portion of the Maynardville. Blue massive beds ribboned with argillaceous partings are common. Along the strike the limestone may become coarsely oolitic, resembling the lower limestone member of the Nolichucky shale, discussed above. Beds of massive gray crystalline dolomite also occur in the middle limestone member. The exact stratigraphic position of the dolomite is unknown, but it appears to occur sporadically in the lower portion of the unit. Approximately 400 feet of limestone is exposed in a quarry located in the belt east of the Beaver Valley fault and a short distance northeast of Shiloh Church. The thickness of the limestone is probably about 500 feet.

Leaching of carbonate minerals from the limestone by weathering processes leaves a residual soil which contains numerous shale fragments. These fragments are derived from the shaly partings in the limestone, and their presence makes identification of this unit difficult in deeply weathered areas.

SHALE MEMBER OF THE NOLICHUCKY SHALE

The shales between the middle limestone member of the Nolichucky shale and the Maynardville limestone are quite similar to other shales of the Nolichucky discussed above. Much of the shale is composed of clay minerals and a minimum of grit. Drab-green shale predominates, although numerous thin beds of pastel-colored shale are present. Fragments of agnostid trilobites are locally abundant in this unit. The thickness of this member is unknown.

MAYNARDVILLE LIMESTONE

Belts of the Maynardville are present along the western slopes of Lead Mine Ridge and along Candies Creek Ridge. Partial exposures suggest that the formation is quite similar to that in belts to the southeast. Along each of the above-mentioned ridges the formation is obscured by great quantities of chert derived from the Knox group. At the northern end of Lead Mine Ridge numerous outcrops of limestone slightly west of the ridge suggest that the formation may be somewhat thicker there than in other belts. However, unknown structural conditions at this locality may account for the apparently greater thickness. Although the Maynardville has not been identified along the western slopes of Pine Hill Ridge, a portion of the formation may be present.

Knox Group

Formations of the Knox group underlie extensive areas near Cleveland; nevertheless, bedrock exposures are exceedingly rare, and little is known of the lithology of these rocks in their unaltered condition. Differentiation of the Knox group is based entirely on the characteristics of its residuum. For this reason, the residuum is discussed in detail in a later section.

A marked change occurs in the Knox from the northwestern belts to those in the southeast. The quantity of siliceous materials in the thick residuum that overlies the bedrock decreases to the southeast, and the dolomite of the northwestern belts gives way, in part, to limestone.

Faunal evidence (Butts, 1926; Oder, 1934; Resser, 1938; Rodgers and Kent, 1948) indicates that the Knox group is of Late Cambrian and Early Ordovician age.

Safford (1869, p. 204) proposed the name Knox group for exposures near Knoxville, Knox County, Tenn. The Knox shale of Safford corresponds to the Conasauga shale of later reports, and the Knox sandstone is now called the Rome formation. Hayes, Keith, Smith, Ulrich, and Butts in later mapping restricted the usage of Knox to the dolomite sequence. In this report the Knox group includes units b[illegible]n the top of the Maynardville limestone and the prominent disconformity between the Lower and Middle Ordovician rocks.

Ulrich (1911) was the first to subdivide the dolomite sequence. Oder (1934), Rodgers (1943), Oder and Miller (1945), Bridge (1945), Dunlap (1945), Rodgers and Kent (1948), Rodgers (1953), and others have refined the early subdivisions proposed by Ulrich. The widely used present classification, which is followed in this report, is shown below.

Present classification of the Knox group

Name	*Map symbol*	*Original description*
Mascot dolomite	Oma	Oder and Miller, 1945
Kingsport formation	Ok	Oder and Miller, 1945
Longview dolomite	Olv	Butts, 1926
Chepultepec dolomite	Oc	Ulrich, 1911
Copper Ridge dolomite	Ecr	Ulrich, 1911

COPPER RIDGE DOLOMITE

Descriptions by Ulrich (1911), Hall and Amick (1934), Rodgers and Kent (1948), and others indicate that the Copper Ridge dolomite consists typically of massive dark crystalline dolomite which is commonly asphaltic. Other types of dolomite also are present, the most abundant being light gray and well bedded. Thin dolomitic sandstones occur at various horizons in the formation, particularly in the upper third.

Bedrock exposures of the Copper Ridge in the Cleveland area suggest that descriptions of these rocks in areas to the north are generally applicable here. The lower and upper boundaries of the formation as described in this report probably correspond to those described in other areas. The base of the Copper Ridge is placed at the top of the light-colored chert-free Maynardville limestone. Massive sandstones at the base of the overlying Chepultepec dolomite, which mark the Cambrian-Ordovician boundary, determine the top of the Copper Ridge. The formation is generally about 1,000 feet thick in the Cleveland area.

In the southeasternmost outcrop belt of the Knox in Polk County, light-blue limestones replace the asphaltic dolomite beds present in belts to the northwest. Limited exposures in this belt indicate that the basal 50 feet or more of the formation is limestone. These beds may be equivalent to the Conococheague limestone (Stose, 1908, p. 701) of other areas.

Fossils other than Cryptozoa have not been found. Resser (1938, p. 18) reports that several types of Cryptozoa are present in the formation, including *Cryptozoon proliferum* and *C. undulatum*. Silicified remains of these species are locally abundant in the residuum of the Copper Ridge.

Upon ıering the Copper Ridge produces large quantities of chert. These chert masses tend to retard erosion of underlying materials, and in areas of moderate dip the Copper Ridge commonly forms a low, even-crested ridge or a row of hills which stand above the surrounding terrain. Where the beds dip gently two ridges are usually produced.

CHEPULTEPEC DOLOMITE

In northern East Tennessee the Chepultepec consists chiefly of fine- to medium-grained dolomite which is typically light gray or tan. Other types of dolomite also are present but are generally less abundant than the light-colored varieties. Much of the dolomite is silty. In the Cleveland area outcrops of the Chepultepec are virtually nonexistent. The base of the formation is clearly marked in many localities by thin sandstone beds. Angular fragments and blocks of these sandstones are commonly present in the residuum. The blocks may be 6 feet or more thick, although beds 1 to 2 feet thick are most common. In some areas thin sandy zones occur throughout the lower third of the formation; however, the more massive sands are restricted to the lower 50 feet of the unit. In bedrock exposures, the top of the Chepultepec is placed at a rather minor change in lithology (Rodgers and Kent, 1948, p. 22). In the Cleveland area the boundary is determined by changes in chert characteristics. It is believed that these changes occur within a short stratigraphic range and that they correspond approximately to the upper boundary of the formation as determined by others. The thickness of the Chepultepec is probably about 700 feet in this area.

The quantity of chert in the soils overlying the Chepultepec is less than that in the soils overlying the Copper Ridge dolomite. The formation generally underlies a broad, shallow valley downdip from the rather prominent ridges of the Copper Ridge dolomite. Low, circular depressions and marshlands are common where the lower portion of the formation underlies the residuum.

The generally unfossiliferous beds of the Chepultepec were originally designated as Cambrian or Ordovician, later as Upper Cambrian, and finally as Lower Ordovician.

LONGVIEW DOLOMITE

Approximately the lower half of the Longview is dolomite not unlike that of the underlying Chepultepec. In the upper portion the dolomite is interbedded with blue and tan compact argillaceous limestone. In the Cleveland area the Longview is estimated to be 300 feet or less thick. The upper boundary of the Longview has been determined in areas to the north largely on faunal evidence. Rodgers and Kent (1948, p. 25) suggest that the contact between the Longview and the o\ ,ing Kingsport formation be placed between limestone containing *Lecanospira* and overlying beds which contain *Orospira*. In the Cleveland area a change in residual cherts at approximately the stratigraphic horizon mentioned above has been used to determine the Longview-Kingsport contact. A corresponding topographic change is common at this same horizon. Upon weathering, the Longview is seen to be exceedingly cherty, and the great quantities of massive chert residual from the formation give rise to a low ridge or a series of low hills. Only a very few outcrops of this formation are known in the Cleveland area.

KINGSPORT FORMATION

The Kingsport consists typically of a lower unit of blue and tan fine-grained limestone which is usually about 50 feet thick, and an upper unit of light-colored fine-grained dolomite. In the Cleveland area the formation is approximately 225 feet thick. Exposures in this area are very poor, but a few scattered outcrops of limestone have been noted. The upper boundary of the formation is drawn at the base of a thin sandstone zone which appears to be present throughout the area. Six or seven beds of sandstone, usually less than 6 inches thick, occur at this horizon. Some of the sandstone beds are cemented with white and greenish chert to which the term chert-matrix sandstone has been applied. This horizon has been widely recognized and used to separate the Kingsport from the overlying Mascot dolomite throughout much of East Tennessee.

Much less chert is produced from weathering of the Kingsport than from the other formations of the Knox. The formation usually underlies gentle slopes or shallow valleys downdip from ridges or hills developed on the Longview. An orange-red soil is normally developed over the formation.

MASCOT DOLOMITE

Light- to dark-gray fine-grained dolomite characteristically makes up the lower portion of the Mascot dolomite. In general the dolomite becomes lighter in color higher in the unit, and the uppermost portion of the formation contains much blue limestone interbedded with fine-grained light-gray and tan dolomite. In contrast to other formations of the Knox in the Cleveland area, outcrops of the uppermost portion of the Mascot are locally abundant. Along the Chatata Creek valley northeast of Cleveland, outcrops are rather common. In that area, beds of fine-grained blue-gray limestone as thick as 6 feet are interbedded with fine-grained to dense light-gray dolomite. Much of the dolomite is faintly mottled red or green. The top of the formation generally is

ESCRIPTION OF STRUCTURAL FEATURES

The names of the principal folds and faults as used in the following paragraphs conform with those suggested by Rodgers (1953). Local structures which are not persistent along the strike are assigned local geographic names.

Folds southeast of the Knoxville fault

The trace of the Knoxville fault, which lies just east of Cleveland, roughly separates the area into two structural units. Southeast of the fault relatively open folds and minor faulting prevail, whereas northwest of the fault the rocks are closely folded and strongly faulted.

Chatata Valley syncline.—The most conspicuous of the folds southeast of the Knoxville fault is the Chatata Valley syncline. This structure is the southwestern extremity of the Athens syncline, named for the town of Athens, McMinn County, Tenn., 15 miles north of the Cleveland area. The Athens syncline clearly extends from Cleveland some 70 miles north to about the latitude of Knoxville, Tenn. The position of the Chatata Valley structure is plainly marked in the northeastern part of the Cleveland area, where the competent beds of the Maynardville limestone and the formations of the Knox group are exposed. To the south, in the broad expanse of the crumpled Conasauga rocks, the fold is ill defined, and it evidently dies out just north of the Georgia-Tennessee boundary. The youngest formation exposed in the syncline is the Athens shale. A few hundred yards east of the Cleveland area, however, rocks of the still younger Holston formation are present. The eastern limb of the syncline is characterized by steeply dipping beds which in places are slightly overturned to the northwest. The western limb of the fold dips gently 15 to 30 degrees to the southeast. For the most part the fold is unbroken by faulting.

Pumpkin Center syncline.—A short distance east of the Athens syncline another synclinal structure, herein designated the Pumpkin Center syncline, is present. According to Munyan (1951, geologic map) this structure continues southwestward into Georgia for several miles. Unlike the Athens syncline, this fold is complicated by faulting, especially in the southern part of the area. A reversal of the general southwestward plunge of the structure is suggested in the southern part of the area. The eastern limb of the syncline dips slightly more steeply than the western limb through the length of the fold.

Minor folds and complex local structures are numerous in the broad shale belts which border the Athens and Pumpkin Valley folds. Most shale outcrops exhibit intricate folds and faults which have not been mapped in detail.

Folds northwest of the Knoxville fault

The structurally competent Knox group in this area occurs principally in steeply dipping homoclinal structures. The southeastern limbs of these fold remnants are rarely present, or at least they are not exposed at the surface. Instead, these structures are bounded on the southeast by thrust faults which place older formations in contact with the formations of the Knox. The Pine Hill Ridge, Lebanon-Candies Creek Ridge, Lead Mine Ridge, and Blue Spring Ridge are examples of this type of structure. In the latter ridge near the southern boundary of the area, the steep southeastern limb of the Blue Springs syncline is present.

An exception to the homoclinal structures is the Whiteoak Mountain syncline, a shallow, broad syncline in which the northwest limb dips very gently. The southeast limb is complexly folded and faulted and is characterized by beds ranging from steeply dipping to overturned. This syncline extends for several tens of miles beyond the Cleveland area. Its southeastern limb is characterized throughout its length by complex folding and faulting (Rodgers, 1953).

The rocks of the Conasauga group and the Rome formation, which occupy large areas northwest of the Knoxville fault, are nearly everywhere complexly deformed. Isoclinal folding accompanied by strong faulting is common in the area between the Lebanon-Candies Creek Ridge and Whiteoak Mountain. Open folds either anticlinal or synclinal are numerous, but these can be traced only short distances before they give way to other structures. In nearly all places the folds in this area are broken by faults. Many of the smaller faults are not shown on the accompanying maps. One of the most continuous structures in this area of strongly folded rocks is the anticlinal structure northwest of the Lebanon-Candies Creek Ridge. This fold extends from the southwestern corner of the Cleveland area northeastward to the latitude of Cleveland. The northwest limb is sharply overturned throughout its length. Numerous drag folds are associated with the anticline.

Major faults and related features

Most striking of the structural features are the major thrust faults. Six of the principal thrusts of the Valley and Ridge province trend northeastward across the area. Each of these faults continues for many miles along the strike (Rodgers, 1953). Five of the faults extend southward into Georgia (Munyan, 1951; Butts and Gildersleeve, 1948).

Chestuee fault.—The Chestuee fault, named by Rodgers (1953) for Chestuee Creek, McMinn County, Tenn., is the southeasternmost major fault in the Cleveland area. In the Chestuee Creek area, the Conasauga is thrust over the Knox group (Rodgers, 1953). Southwestward from the Chestuee Creek area the fault apparently swings out into the wide out-

crop belt of the Conasauga, where relationships are less clear. Along the eastern boundary of the Cleveland area the fault also occurs in the Conasauga belt, east of the Athens syncline. Because of the generally crumpled nature of the Conasauga and sparseness of its outcrops, the fault zone is difficult to trace. Steeply dipping beds of the Knox, which compose a portion of the eastern limb of the Athens syncline, are in normal sequence and are unbroken. East of the outcrop belt of the Maynardville limestone, clay shales of the Conasauga dip to the west in conformity with the formations of the Knox. A few hundred yards to the east, however, the Conasauga is extremely crumpled. The fault has been drawn through this zone. Along this zone the clay shale and thin limestone sequence typical of the upper part of the Conasauga below the Maynardville in this area is flanked by a sequence of shale containing much siltstone and little or no limestone. The shale-siltstone series is typical of the lower portion of the Conasauga group in this area. Although the lower shale-siltstone unit could be explained as a normal stratigraphic sequence dipping northwest, it is probable that displacement occurs along the strongly crumpled zone. A short distance to the southwest along strike, the fault apparently dies out, or at least has not been recognized.

Chatata Creek klippe.—Although the precise location of the Chestuee fault is questionable, the best evidence for its existence is the klippe a short distance east of Chatata Creek, which is presumably related to the fault. Approximately two-thirds of the klippe is present in the Cleveland area. Reconnaissance traverses to the east indicate that this structure is entirely cut off from the fault to the east.

The rocks of the klippe include all the formations of the Knox group and a portion of the Lenoir limestone. Evidence from a few outcrops suggests that the Knox is overturned to the northwest. The overturned beds rest on the Mascot dolomite, Lenoir limestone, and Athens shale. Essentially the same relationships appear to continue throughout the length of the structure to the northeast beyond the area of this report. During the development of the klippe, a steeply dipping transverse fault striking north offset the formations of the Knox in the upper block. No evidence of this fault is present in the overridden block.

Unfortunately, bedrock exposures in the vicinity of the klippe are sparse. The formations associated with the structure have been identified and mapped largely on the characteristics of the overlying residuum. Very little is known about the attitudes of the rocks in the klippe. It is suggested that the klippe originated from a sharply overturned anticline. Willis (1934, p. 230) describes "strut thrusts" produced experimentally by Cadell in 1888, which might explain the mechanics of the Chestuee fault. The displacement along such a break theoretically would

be of limited extent. The pattern of the outcrop suggests that the actual displacement is approximately half a mile. Shortening of the shales of the Conasauga underlying the overturned anticline is accomplished by close folding and numerous bedding shears. The formations in the overriding block seem to be similar to those in the overridden block. A few miles to the east the beds of the Knox are unlike those in the klippe. Another explanation might be that the beds in the klippe are not simply the displaced western limb of the Athens syncline, but represent formations of the Knox, originally lying farther to the east, which have been shoved westward along a low-angle thrust.

Knoxville fault.—The Knoxville fault is more clearly defined than the Chestuee fault. The Conasauga group has been thrust against the Ottosee shale in the southern part of the area. Northeastward the Conasauga is in contact with progressively older formations until in the northern part of the area the Conasauga is in contact with the Copper Ridge dolomite. From the latitude of Cleveland northeastward several minor faults are present which appear to be branches of the main fault. Exposures of the Copper Ridge dolomite in small areas along the fault are interpreted as slices. Outcrops are virtually nonexistent in these areas and the structural relationships can only be inferred. The secondary faults trending northeastward toward the eastern limb of the Athens syncline may be directly connected with the principal fault, but these faults are difficult to trace with certainty through the crumpled shale of the Conasauga. Slightly southwest of Cleveland the main fault is interpreted as splitting into two distinct faults which continue separately throughout the area to the northeast. The validity of this assumption, especially to the north, is questionable. The belt of Knox west of the fault may be synclinal and thus a westernmost fault would not have to be postulated. If the Knox retains a southeast dip, however, the interpretation is valid. Unfortunately, no outcrops of dolomite are present in this Knox belt from Cleveland to the northern extremity of the area, and consequently the attitude of the dolomite is unknown. Exposures, although uncommon, strongly suggest that along the Knoxville fault zone from Cleveland northward many subsidiary faults in addition to the ones indicated are present.

Red Hills klippen.—Along the southern portion of the Knoxville fault several klippen are irregularly distributed in the Red Hills area. These structures are recognized from abundant residual chert from the Knox group. Very few outcrops are present in the klippe blocks, and distinctive cherts are absent; consequently they have been mapped as Knox group, undivided. Judging from the gross characteristics of the residual cherts in these areas, however, the Knox is apparently very similar to that northwest of the Knoxville fault. It is unlike the Knox in

issue . g faults. About a quarter of a mile south of Flint Spring another spring of this type occurs. Here the water moves downdip along the Holston formation until it is forced to the surface along the contact with the overlying Ottosee shale.

Springs in topographic lows

Springs in the Cleveland area are controlled principally by topography and the position of the water table. They occur at the junction of the water table and land surface, and are present along all stream valleys and in many areas not occupied by permanent streams. They occur in rocks of all types, but the larger ones invariably are associated with the carbonate formations. Richey Spring (37-S), east of Cleveland and adjacent to Chatata Creek, is one of the largest in the Cleveland area. In this locality the Mascot dolomite dips 10 to 20 degrees to the southeast near the axis of the Athens syncline. In shale, siltstone, and sandstone areas springs are ordinarily small and of the seepage type.

Relation of Ground Water to Structure

The rock structure in the Cleveland area influences the ground-water resources, first, in controlling the position and distribution of the important aquifers, and second, in controlling the movement of ground water within those formations.

In the Cleveland area most of the ground water occurs in secondary openings in the rocks, principally joints, faults, and associated fractures. Near the surface all the rocks are cut by joints and crevices, but these fractures do not persist to great depths. In many places the joints are sealed with minerals that are relatively impermeable. In spite of this, however, the joints have a strong influence upon the occurrence and movement of ground water. Weathering processes are facilitated by movement of water along the joints and bedding planes, in both the clastic and the carbonate rocks. The depth to which water is able to descend more or less freely in crevices is generally as much as 300 feet in the limestone formations and about 75 feet in the shale, siltstone, and sandstone formations. In a few places, weathering undoubtedly extends to greater depths.

As a general rule, it is impossible because of the poorness of outcrops to predict from surface observations the location and abundance of joints. The position of faults and fault zones can, however, be determined in most cases from surface observations. Owing to the linearity of these fractures, their positions can be predicted even in areas where outcrops of bedrock are sparse. For this reason faults are of considerable practical importance in the location of ground-water supplies. Fractures

along fault zones extend to greater depths than joints, and [illegible]ce they make possible the development of ground water at greater depths. In most places, however, it is not likely that water can be obtained from depths greater than 300 feet, even along faults.

The many folds of diverse types and trends in the Cleveland area are of little practical importance in the prediction of ground-water supplies except as they control the distribution of the important aquifers. Locally, if fold patterns are known, areas of fractured rocks can be predicted in a general way. As a rule, however, outcrops of the carbonate formations are not abundant enough to determine accurately the location of fractured zones related to folds.

Relation of Ground Water to Topography

In the Cleveland area the configuration of the water table resembles that of the land surface, but the water table is at greater depths beneath hills, as a rule, than beneath valleys. Fluctuations of the water table are similarly greater in hill and ridge areas than in low-lying areas. In periods of drought, wells on ridges are more likely to become dry than those at lower elevation, because of the larger seasonal fluctuations.

In some places, particularly along ridges underlain by dolomite of the Knox group, ground water is perched or semiperched in the residuum—that is, it is prevented by the low permeability of the residuum from "seeking its level" as readily as does water in the more permeable bedrock. Under such conditions the depth to the water table may not be greater than in adjacent valleys, and the magnitude of water-table fluctuation may be slight. An example exists in East Cleveland. The depth to water in well 152 is generally about 30 feet (pl. 6). Well 36 (pl. 6) is approximately 300 feet from well 152 and at about the same elevation, yet the depth to water in well 36 is consistently 100 feet more than in well 152. Excessive pumping from the shallow well (152) would soon deplete the water in storage near the crest of the ridge. However, the deeper well would continue to yield water for a much longer period. The shallow well is a well dug in cherty residuum of the Knox group, whereas the deep well penetrates bedrock.

Aquifer Properties

The quantity of water that water-bearing rocks will yield by either natural or artificial discharge depends in part upon the hydrologic characteristics of the rocks. The permeability, which is a measure of the ability of a rock unit to transmit water, and the specific yield, a measure of the quantity of water that will drain from a rock formation, are sig-

Reference 10

Tennessee Department of Environment and Conservation
Division of Water Supply

Public Water System Data
July 16, 2002

PUBLIC WATER SYSTEM DATA

Key Identification Number: 0000024

Name of Water System: ATHENS UTILITIES BOARD
Mailing Address: 100 ENGLEWOOD ROAD
City: ATHENS County: MCMINN
Zip Code: 37303 Office Phone: 745-4501 Plant Phone: 745-6273

Title of Person	Name	Certification	Interviewed	Correspondence
GENERAL MANAGER	ERIC NEWBERRY			✓
SUPERINTENDENT	JILL DAVIS		✓	✓
CHIEF OPERATOR	KENNETH (JEFF) FERGUSON		✓	✓
DIST., CROSS CONNECTIONS	DOUG GENTRY, ROY KING		✓	

No.		Source	INTAKE LOCATION: USGS Map / LATITUDE / LONGITUDE / River Mile	MARK (ONE ONLY): Surface	Ground	Purchased	TREATMENT: Aeration	Prechlorination	Coagulation	Sedimentation	Filtration	Corrosion Control	Softening	Taste & Odor Control	Iron Removal	Fluoride Adjustment	Disinfection
		HIWASSEE UTILITIES COMMISSION (purchased)															
1	R	INGLESIDE SPRING	DEG 35 MIN 27 SEC 24		X			X	X	X	X	X				X	X
	A		84 34 49														
2	R	NEW SPRING (pumped into Ingleside Spring)	35 27 23		X			X	X	X	X	X				X	X
	A		84 34 51														
3	R	2 WELLS (pumped into Ingleside Spring)			X			X	X	X	X	X				X	X
	A	WELL #12 (PUMPED INTO INGLESIDE SPRING)															
4	R	OOSTANAULA CREEK - BACK UP	35 27 23	X				X	X	X	X	X				X	X
	A		84 34 51														

Name of Systems Served By This System	Other Systems Connected To This System
NIOTA W.S.	
CALHOUN-CHARLESTON U.D.	
RICEVILLE U.D.	

Plant Classification: WT4
Distribution Classification: DS2 Date Laboratory Certified: 7-16-02
Design Capacity: 2880 (gpm) Filter Area: 1440 (sq ft) Filter Rate: 2.0 (gpm/ft²)
Raw Water Pump Capacity: 2@1440, 1@2880 (gpm) Finished Water Pump Capacity: 2@1440, 1@2880 (gpm)
Distribution Storage, Gravity Flow: 5@4.5 (million gallons) Emergency Power Only: NONE (gal/day)
Clearwell Capacity: 1.0 (million gallons) Date Cross Connection Control Program Approved: 3/30/87
Date of Last Inorganic Chemical Analysis: Date of Last Organic Chemical Analysis:
Date of Last Radionuclide Analysis: Date Emergency Plan Approved: 4/15/2001 Last Rating:
Number of Wholesale Customers: 3 Number of Meters: 6,954 Date of Last Survey: 7-16-02
Remarks:

Date of Survey	Number of Connections	Household Factor	Population Served	Average Daily Pumpage (million gallons)	Maximum Daily Pumpage (million gallons)	Engineer	Rating	Year
7-16-02	6,954	2.45	17,037	2.084	3.322	MHF	93	2002
2/20/01	6,814	2.55	17,376	2.514	3.602	CLB	93	2001
1/19/00	6,578	2.55	16,774	2.416	3.397	MHF	96	2000

Reference 11

State Of Tennessee
Department of Conservation
Division of Geology

Bulletin 58, Part 1
Groundwater Resources of East Tennessee
1956

State of Tennessee

DEPARTMENT OF CONSERVATION

DIVISION OF GEOLOGY

BULLETIN 58

PART I

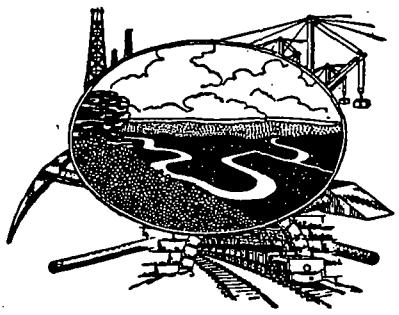
GROUND-WATER RESOURCES OF EAST TENNESSEE

By

G. D. DeBUCHANANNE

and

R. M. RICHARDSON



Prepared in cooperation with the U. S. Geological Survey

NASHVILLE, TENNESSEE

1956

TABLE 55.—TYPICAL WELLS AND SPRINGS IN McMINN COUNTY—Continued

Well or spring No.	Location with reference to nearest post office	Owner or name	Driller	Topographic situation	Altitude (feet)	Depth of well (feet)	Length of casing (feet)	Diameter (inches)	Probable water-bearing beds		Depth to water level (feet)	Date of measurement	Method of lift	Yield (gallons per minute)	Temperature (°F.)	Use of water	Remarks
									Character of material	Geologic horizon							
38–S	2 mi. NW.	Denton Spring	.....	Valley	900	.....	.....	.....	Shale	Ꞓc	.....	.....	.....	300	58	D,S	
39	2½ mi. W.	*Harry Evans*	*Jim Hairrell*	*Hilltop*	*870*	*36*	*30*	*6*	do.	Ꞓc	29	.....	J	.....	.....	D	
40–S	3½ mi. W.	Armvine Spring	.....	Valley	900	.....	.....	.....	Dolomite	Oc	.....	.....	.....	400	58	D	
41	do.	Cas Henderson	Jim Hairrell	do.	940	111	96	6	do.	Oc	0	.....	J	.....	.....	D,S	Flowing well.
42	4 mi. NW.	H. J. Wagner	.....	do.	1,020	31	.....	.....	do.	Ꞓcr	2	.....	L	.....	.....	D,S	
43	2½ mi. NW.	J. B. Smith	.....	Hilltop	960	25	.....	.....	Shale	Ꞓc	22	.....	B	.....	.....	D	
	ERIE																
44	2½ mi. SW.	J. B. Terry	Jim Hairrell	Slope	920	51	30	6	Dolomite	Ꞓcr	.....	.....	J	.....	.....	D	
45	3½ mi. SW.	Mac Heiskell	do.	do.	940	124	.....	6	Shale	Ꞓc	4	.....	J	.....	.....	D	
	ETOWAH																
46–1	In town	City of Etowah	.....	Valley	840	250	.....	8	do.	Oa	.....	.....	T	150	....	P	Well reported to flow when not being pumped.
46–2	do.	do.	.....	do.	840	250	.....	8	do.	Oa	.....	.....	T	35	....	P	Do.
46–3	do.	do.	.....	do.	820	250	.....	8	do.	Oa	.....	.....	T	40	....	P	Do.
46–4	do.	do.	.....	do.	840	401	.....	8	do.	Oa	11	.....	T	150	....	P	
47–S	1½ mi. S.	Fowler Spring	.....	do.	760	.....	.....	.....	do.	Ꞓc	.....	.....	.....	250	60	P	
48	do.	Chilhowee Motor Court	.....	do.	800	92	.....	6	Dolomite	O-Ꞓk	77	.....	J	5	60	In	
49–S	2½ mi. N.	Crockett Spring	.....	do.	870	.....	.....	.....	do.	On	.....	.....	.....	500	60	S	
50	do.	W. F. Moses	.....	Slope	900	36	.....	6	Shale	Oa	15	.....	L	.....	60	D	
51–S	2 mi. SE.	Tuggle Spring	.....	Valley	780	.....	.....	.....	do.	Ꞓc	.....	.....	.....	500	57	D,S	
52–S	do.	McSpadden Spring	.....	do.	840	.....	.....	.....	do.	Ꞓc	.....	.....	.....	500	57	D,S	
53–S	3 mi. S.	Cave Spring	.....	do.	860	.....	.....	.....	Dolomite	O-Ꞓk	.....	.....	.....	1,000	55	D,S	
	DELANO																
54–S	3 mi. W.	Dodd Spring	.....	do.	750	.....	.....	.....	do.	O-Ꞓk	.....	.....	.....	1,000	59	D,S	
55–S	do.	J. H. Trow	.....	do.	760	.....	.....	.....	do.	O-Ꞓk	.....	.....	.....	200	59	D	

	ETOWAH																
56-S	4½ mi. W.	Ford Elrod	.....	Hilltop	800	.....	.....	.....	Shale	€c	.....	.....	.....	8	57	D	
57	3 mi. E.	Conasauga School	.....	do.	....	50	.....	....	do.	Oa	30	.....	L	.....	59	P	
58	4 mi. E.	W. L. Tallant	.....	Slope	840	26	.....	6	do.	Oa	12	12/48	B	.....	62	D	Water sample analysed.
	MT. VERNON																
59-S	6 mi. S.	White Cliff	.....	Valley	1,900	.....	.....	.....	do.	ocss	.....	.....	.....	20	.....	.....	
	ETOWAH																
60	1½ mi. N.	J. L. Bain	.....	Slope	880	50	.....	6	do.	Oa	6	1/49	P	.....	.....	D	
61	2½ mi. N.	L. S. Blair	Herb Hairrell	do.	900	100	78	6	Dolomite	Oc	60	.....	J	.....	.....	D	
62-S	3 mi. N.	Chestnut Spring	.....	Valley	800	.....	.....	.....	do.	€cr	.....	.....	.....	1,000	57	....	
63	3½ mi. NW.	Wesleyana School	.....	Slope	800	60	.....	6	Shale	€c	.....	.....	L	.....	56	P	
64	do.	Alec Humphries	.....	Valley	760	17	.....	36	do.	€c	3	1/49	B	.....	.....	D	
65	3½ mi. W.	Gravel Hill School	.....	do.	860	75	.....	6	do.	€c	.....	.....	L	.....	.....	P	
66	3 mi. W.	J. E. Ross	.....	do.	780	34	35	24	Dolomite	€cr	29	1/49	B	.....	.....	D	
67-S	3 mi. W.	G. E. Ross	.....	do.	770	.....	.....	.....	do.	O-€k	.....	.....	.....	100	5	S	
68-S	2 mi. W.	Good Spring	.....	do.	860	.....	.....	.....	Limestone	Oh	.....	.....	.....	50	57	D	
	DELANO																
69	4½ mi. NW.	C. F. Rowland	.....	do.	770	13	12	24	Shale	€c	0	1/49	B	.....	.....	D	
70	4 mi. NW.	J. E. Rowland	.....	Hilltop	790	26	27	24	do.	€c	15	1/49	....	.....	.....	D	
71	2 mi. N.	Carlock School	.....	Slope	780	100	.....	6	Dolomite	O-€k	.....	.....	J	.....	61	P	
	ATHENS																
72-S-1	In town	Ingleside Spring	.....	Valley	880	.....	.....	.....	do.	Ok	.....	.....	.....	1,500	58	P	Owned by Commissioners Athens Board of Water Works. Water sample analysed.
72-S-2	do.	do.	.....	do.	880	.....	.....	.....	do.	Ok	.....	.....	.....	350	59	P	Do.
73	do.	Athens Table Co.	Bayliss	Slope	980	420	.....	6	do.	Oc	50	.....	L	25	59	In	
74	do.	Athens Hosiery Mill	.....	Valley	960	125	125	6	do.	€cr	95	.....	T	25	60	In	
75-S	2 mi. NW.	Guthrie Spring	.....	do.	840	.....	.....	.....	do.	€cr	.....	.....	.....	1,000	58	D	
	ETOWAH																
76	4 mi. N.	F. P. Cantrell	.....	Hilltop	860	46	40	6	Shale	€c	23	.....	L	.....	.....	D	

profoundly the size and shape of the openings through which it passes. Because the acidity of water moving through limestone decreases as calcium carbonate is dissolved, the rate of solution decreases with depth. This results in the enlargement of fractures by solution near the surface, and, under certain conditions, in the closing of fractures by precipitation at depth.

The yield of wells in limestone is dependent upon the size and number of solution cavities encountered in drilling. It is known, from records of water wells and other borings in East Tennessee, that solution cavities containing water are present at depths of as much as 900 to 1,000 feet below the surface. However, most of such openings usually are confined to the first 350 feet. If sufficient water is not obtained in 350 feet of drilling, it generally is not advisable to drill deeper, as the chance of obtaining additional water decreases with depth.

The problem of determining the location for a well to be drilled into a limestone or dolomite then becomes one of predicting the presence of solution cavities. There is no positive way to locate these cavities except by drilling.

Many sinkholes caused by the collapse of caverns may be found in areas where extensive solution of the underlying limestone has taken place. In such areas, few surface streams are found. Most of the drainage is through a well-developed underground drainage system, and the water table is likely to be deeper than in other areas. The reason for this is that the subsurface drainage pattern is so well developed that water falling on the surface quickly percolates downward to the subsurface drainage system where it moves rapidly in solution channels laterally to points of discharge. Such systems drain the water so rapidly that little is retained in storage above the grade of the subsurface drainage. In areas where subsurface drainage is not so well developed, water is held in storage for a longer time before discharging.

There is evidence that solution has been more active near perennial streams than elsewhere. Industries close to rivers are more successful in obtaining large supplies of ground water than those in other locations. It is possible that, in some places, solution along zones of weakness in the rocks has determined the location of the stream. In any event, it is probable that in many places solution channels are connected with surface streams and that these connections allow river water to flow into wells.

Shale is formed by the compaction and consolidation of sediments composed chiefly of particles of clay or silt size. Shales have very little primary pore space, and, unless secondary openings are formed by fracturing, will yield very little water to wells. The rocks of East Tennessee have been folded and faulted extensively, hence, shales that are

hard and brittle enough to support fractures are an the better aquifers of the area.

Shales containing appreciable quantities of calcium carbonate yield more water than noncalcareous shales, as the fractures in such rock are susceptible to enlargement by the solvent action of water. In general, fractures in shale are much more closely spaced than those in limestone and dolomite. As a result, the hydrologic properties of shales are relatively uniform and practically all wells drilled in shale in East Tennessee yield water at moderate depths.

Sandstones and noncalcareous shales are composed of particles of minerals and rock more or less firmly cemented together. Rocks of these types found in East Tennessee contain practically no primary openings. Openings capable of transmitting water are secondary and consist of joints and other fractures formed after the sediments were deposited. Unlike limestone, dolomite, and calcareous shale, the openings in sandstone are not readily susceptible to enlargement by solution by water. Sandstones are not as widely distributed in East Tennessee as limestones, dolomites, and calcareous shales. However, rocks of this type, because of fracturing, will usually yield small supplies of water.

In an attempt to evaluate quantitatively the water-bearing properties of the various rock types, well data collected during the investigation were analyzed as follows:

All wells were grouped according to the geologic formation into which they were drilled. The wells in each formation were grouped according to depth. This information was plotted on coordinate paper, with cumulative frequency of occurrence as the ordinate and depth as the abscissa. It was observed that similar curves were obtained from well data for formations that were similar in their physical properties. Therefore, the wells were regrouped into three classes—calcareous shale, noncalcareous shale and sandstone, and limestone and dolomite—and reanalyzed. Data summarized from curves for these three rock types are shown in table 5.

Table 5 indicates that the chance of obtaining a domestic supply from a well within the first 100 feet is about 30 percent better in formations composed predominantly of calcareous shale than in limestone or dolomite. If a choice were to be made between a calcareous shale and a noncalcareous shale or sandstone, the chances of obtaining water in the first 100 feet are reduced to about a 5-percent difference in favor of the calcareous shale location. The curve for the noncalcareous shale-sandstone aquifers is less reliable than the curves for the other two aquifers, because fewer wells were available for analysis.

The following discussion considers these properties of the three principal rock types:

Igneous Rocks

Igneous rocks are those produced by the cooling and solidifying of molten material that has risen from depth through fissures formed in the weaker parts in the earth's crust. The portion of molten material that solidifies before reaching the earth's surface forms intrusive rocks, whereas the portion that solidifies after reaching the earth's surface forms extrusive or volcanic rocks. In addition to this classification by origin, igneous rocks are subdivided according to their texture and mineral composition.

In most igneous rocks, ground water occurs in fractures developed by the contraction of the rocks as they cooled, or by subsequent earth movements. The fractures may be isolated or may form a crisscross pattern. The size of these fractures and their degree of interconnection control the yield of wells in these rocks. Owing to the weight of the overlying rock, the fractures decrease in size and number with increasing depth, and wells in such rocks usually produce little water from depths greater than 400 or 500 feet.

Some igneous rocks contain small openings developed during the process of solidification. These small cavities produced by steam or gaseous material escaping from the cooling material are called intercrystal spaces and vesicles. Where vesicular igneous rocks are found, large-yield wells and springs are common—for example, the large springs issuing from vesicular basalt along the Snake River in Idaho. In such areas the depth and yield of wells are dependent upon the depth and thickness of the vesicular horizon, rather than the chance interception of a fracture.

As few igneous rocks are found in East Tennessee, they are of no importance as aquifers.

Metamorphic Rocks

Metamorphic rocks are formed by the alteration, due to extreme temperature and pressure, of igneous, sedimentary, or other metamorphic rocks. Different degrees of metamorphism produce different types of rock. In resistant metamorphic rocks, such as quartzite and gneiss, the amount of available water is dependent upon the size, number, and interconnection of the fractures. Quantities of water sufficient for domestic use are usually encountered in the first few hundred feet of drilling. Larger quantities of water are developed along permanent streams. Ground water occurs in marble (metamorphosed limestone) as

it does in ordinary limestone, which is discussed under sedimentary rocks.

In less resistant metamorphic rocks also, such as slates and schists, ground water occurs in fractures. These rocks frequently have a deep mantle of soil overlying them that is permeable enough to permit the downward percolation of water. Domestic water supplies usually can be derived from wells dug to the soil-bedrock contact. Where it is necessary to drill a well into the bedrock, small quantities of water are usually obtained from fractures. Wells in these rocks are usually not as deep as wells in the more resistant types of metamorphic and igneous rocks.

In East Tennessee, metamorphic rocks are restricted to the Blue Ridge province. They are of only local importance as aquifers.

Sedimentary Rocks

Sedimentary rocks are formed by the weathering of igneous, metamorphic, and other sedimentary rocks and the subsequent transportation and deposition of the weathered products. These rocks provide storage for large amounts of ground water.

Unconsolidated sediments, such as gravel, sand, silt, clay, and mixtures of these materials, vary in their water-bearing properties but on the whole include the most important aquifers in the world, though not in East Tennessee. Well-sorted gravel deposits are excellent aquifers. Wells in these deposits frequently yield water at rates of thousands of gallons per minute. Sand that is well sorted and not too fine grained also makes a good aquifer. Deposits of gravel or sand that contain much clay or silt yield little water to wells. Silt and clay are poor aquifers and generally act as confining beds rather than aquifers in series of unconsolidated rocks.

In East Tennessee, unconsolidated sediments are found principally along streams. As these deposits are usually quite thin, they are of little importance as sources of water.

Consolidated sediments, such as limestone, dolomite, shale, and sandstone, also are quite variable in their water-bearing properties. As most of East Tennessee is underlain by consolidated sedimentary rocks, they are the most important aquifers of the area.

The openings in which ground water is found in limestone and dolomite may be classified as to origin into primary and secondary types, or those formed at the time the containing rock itself was formed and those which had a later origin. Secondary openings largely control the movement of ground water in the carbonate rocks of East Tennessee. These openings, mainly fractures and openings along bedding planes, permit the entrance of chemically reactive water, which can modify

Reference 12

Email Correspondence

Athens Utility Board. McMinn County Tennessee
Angela Young DSF personnel

February 12. 2003
March 6. 2003
March 24. 2003

Angela Young - RE: Athens Furniture Industries

From: "Jill Davis" <jdavis@aub.org>
To: "'Angela Young'" <Angela.Young@state.tn.us>
Date: 02/12/2003 4:33 PM
Subject: RE: Athens Furniture Industries

Hey Angela,
I believe this is one I can help you on. The storm water from this site does follow the rail road tracks and then enters the City of Athens storm water system, opens up in a few areas for short distances and ultimately discharges into Oostanaula Creek near the intersection of N. Jackson Street and Green St. right across from the Athens Post Office. I hope this helps,
Jill Davis

-----Original Message-----
From: Angela Young [mailto:Angela.Young@state.tn.us]
Sent: Wednesday, February 12, 2003 11:50 AM
To: jdavis@aub.org
Subject: Athens Furniture Industries

Hello Jill,
I am conducting a PA for this facility located at 1241 Frye Street. We visited the perimeter of the site to determine the surface water pathway and concluded that the site discharged into Dry Creek via a ditch that runs parallel with the Southern Railroad line. Water Pollution Control has a file on Athens Furn that includes an NPDES permit stating that the receiving water is Oostanaula Creek. Does AUB have any information that confirms either of the two. I am trying to figure this out without another road trip to this site. Athens Furniture NPDES permit expired in 2001.
Any info you or your staff might know would be greatly appreciated.
Thanks
Angela
TDSF

Angela Young - RE: Athens Furniture, 1241 Frye Street

From: "Jill Davis" <jdavis@aub.org>
To: "'Angela Young'" <Angela.Young@state.tn.us>
Date: 03/06/2003 9:14 AM
Subject: RE: Athens Furniture, 1241 Frye Street

Hey, sorry it took me a few days to get to this. The site is in the city so most folks you would assume are on AUB water. If you travel on Hwy 39 away from town, you will find some wells. We guessed this is outside of your 1 mile radius but would be within the 4 mile radius. If you travel from the site on Rocky Mount Rd. toward Hwy 11 (intersection at the High school) across the street you are approximately ½ mile from the site and from the Jiffy (or some gas station) and apartments there, several of those houses in that direction would be using well water. The nearest industrial well from the site is at PI (Plastic Industries) across Hwy 11 from Lowes and Staples. I know these are vague answers but they will at least get you started in the right direction. We do not keep up with folks we do not serve so I don't have a data base to pull from. One other mentionable landmark to your site is a RCRA 'dirty closure' landfill from Thomas and Betts. The site has still not been NFRAP'ed from EPA if things haven't changed since I was there. The site faces Rocky Mount Rd. and is a large field (as is should be) between a cemetery and SealTech (part of PI).
Hope things are going well for you guys.
Jill

> -----Original Message-----
> **From:** Angela Young [mailto:Angela.Young@state.tn.us]
> **Sent:** Wednesday, March 05, 2003 9:55 AM
> **To:** jdavis@aub.org
> **Subject:** Athens Furniture, 1241 Frye Street
>
> Hi Jill,
> Is there a location within one mile of this site that is not served by AUB. We are trying to determine the nearest well to the site.
> Thanks
> Angela

From: "Jill Davis" <jdavis@aub.org>
To: "Angela Young" <Angela.Young@state.tn.us>
Date: 3/24/03 9:50AM
Subject: RE: Oostanaula Creek

We measured the flow (October 2001) in several different locations d/s of our plant and the average was about 12.0 cfs. I hope this helps.
Jill

-----Original Message-----
From: Angela Young [mailto:Angela.Young@state.tn.us]
Sent: Monday, March 24, 2003 9:45 AM
To: Jill Davis
Subject: Oostanaula Creek

Could I get a flow rate on this creek from AUB.
Thanks for all your help I am almost finished with this PA.
Angela

Original

DEPARTMENT OF ENVIRONMENT AND CONSERVATION - DIVISION OF WATER POLLUTION CONTROL

Notice of Intent (NOI)

Storm Water Discharges Associated with Industrial Activity under the

Tennessee Multi-Sector General Permit

DEC 11 1997

I. Facility Operator

Legal name: ATHENS FURNITURE IND. INC	Status of operator: 01. ☐ Federal 02. ☐ State 03. ☐ City 04. ☐ County 05. ☑ Private
Mailing address: PO BOX 929	
City: ATHENS TN 37371-0929	State: TN Zip: 37303 Phone: 423 (745) 2441 x 113
Contact person: JOE LAWSON	Title or position: SAFETY/ENVIRO MGR.

II. Facility Identification

Facility name: ATHENS FURNITURE (BED FRM PLANTS)	Mailing address: PO BOX 929 ATHENS TN 37371-0929
Street address: 1241 FRYE ST	Contact person: JOE LAWSON
City: ATHENS (McMinn)	State: TN Zip: 37303 Phone: 423 (745) 2441 x 113

III. Receiving Water and Site Location Information

Storm water from facility enters following stream(s): Give names.

OOSTANAULA CREEK

If storm water enters above stream via a municipal storm sewer system, give name of municipality: CITY OF ATHENS TN.

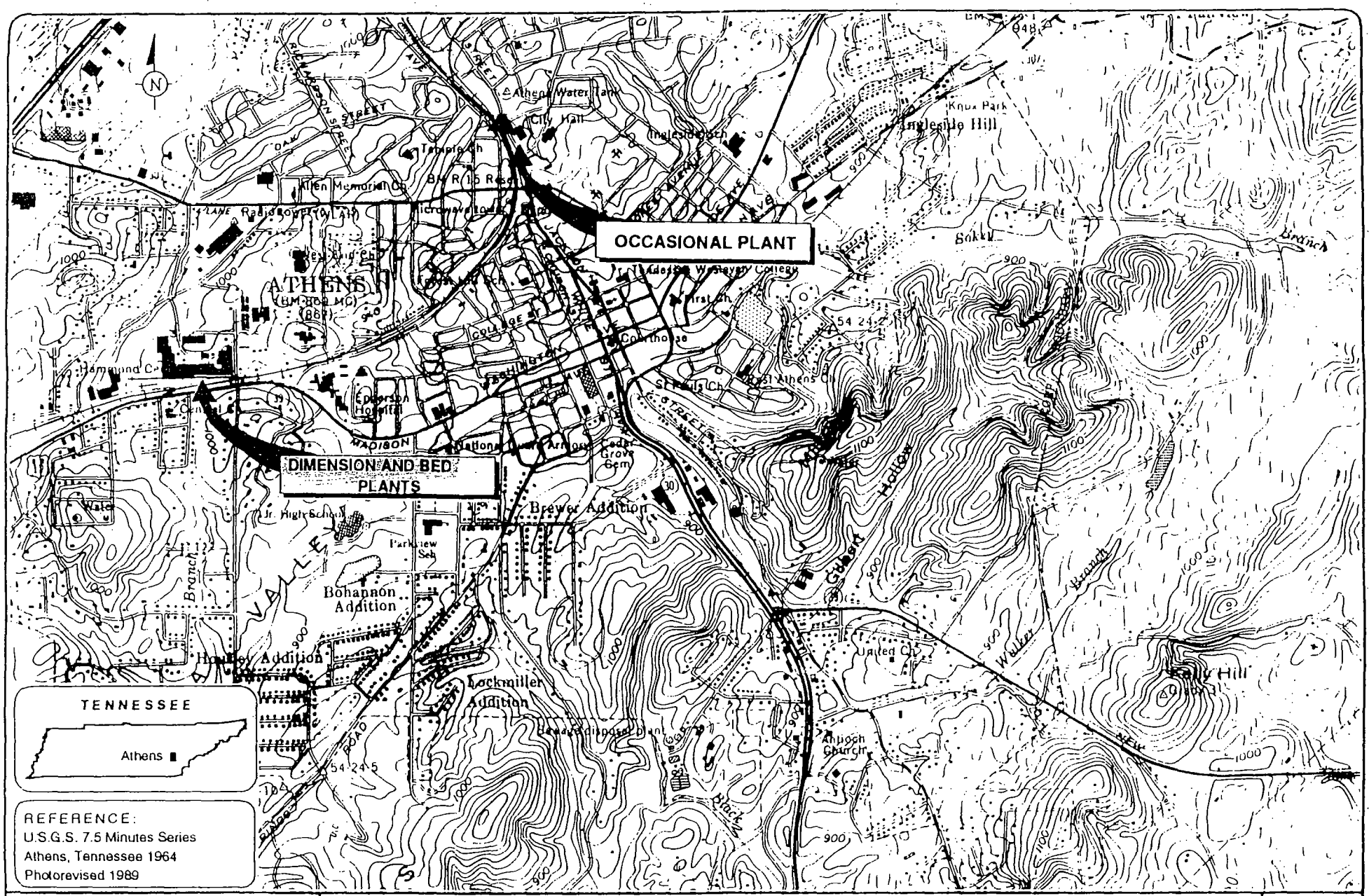
Enter location of facility (center): Latitude: 35 deg. 26 min. 31 sec. Longitude: 84 deg. 33 min. 46 sec.	Area of facility property: App 27 ☒ acres ☐ sq. feet. Area of impervious surfaces: App 330,000 ☐ acres ☒ sq. feet. Attach an 8.5"x11" U.S.G.S. topographical map, a city map, or a county map, identifying the location of this facility. ATTACHED

IV. Industrial Information

SIC codes: List primary as no. 1. 1. 2511 2. _____ 3. _____ 4. _____	Activities at facility: Check all that apply. 01. ☑ Manufacturing 02. ☐ Storage/Distribution 03. ☐ Vehicle storage 04. ☐ Trucking Terminal 05. ☑ Vehicle maintenance 06. ☐ Hazardous waste TSD 07. ☐ Outside waste disposal 08. ☐ Recycling 09. ☐ Wastewater treatment 10. ☐ Land application 11. ☐ Landfill 12. ☐ Mining operations 13. ☐ Coal pile 99. ☐ Other _____
Nature of business: MFG. OF WOOD HOUSEHOLD FURNITURE	

Department Use Only

Date NOI Received: RECEIVED APR 25 1997		NPDES TMSP No: TNR05 3541		Field Office: CFO	
		Postmark: 04-24-97		Reviewer: SRL	



Regional Location Map

Athens Furniture Company Athens, Tennessee

FIGURE

1

STATE OF TENNESSEE

NPDES PERMIT

No. TNR05 3541

General NPDES Permit for

STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Effective March 1, 1997, through December 31, 2001

Tennessee Department of Environment and Conservation
Division of Water Pollution Control
401 Church Street
6th Floor, L&C Annex
Nashville, Tennessee 37243-1534

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.):

Discharger: **ATHENS FURNITURE IND., INC. (ATHENS)**

is authorized to discharge: storm water associated with industrial activity

from a facility located: **AT 1241 FRYE STREET IN MCMINN COUNTY**

to receiving waters named: **OOSTANAULA CREEK**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

Coverage under this general permit shall become effective on **April 29, 97** and shall expire on December 31, 2001.

Notice of Coverage Issuance date: **December 08, 97**

Paul E. Davis, Director
Division of Water Pollution Control

Enclosed Industry Sectors: **W P**

CN-0759

RDAs 2352 and 2366

ATHENS® FURNITURE INDUSTRIES, INC.

P.O. Box 929 • Athens, Tennessee 37371-0929 • (615) 745-1833

NOV 25 1997

PLS 11/25
TPW 12/1
CMA 12/5

November 24, 1997

TYH
GDR
JFR
CLR

File: Athens Furniture Co 1997 McMinn

Tennessee Department of Environment & Conservation
Division of Water Pollution Control (TMSP)
540 McCallie Ave, STE 550
Chattanooga, TN 37402-2013

In accordance to the TMSP Requirement that the appropriate field office (Chattanooga) be notified when the SWPPP is completed, Athens Furniture Industries, Inc., hereby advises you that our plan has been completed as of November 24, 1997.

Very Truly Yours,

Joe Lawson
Environmental Manager

Hold
No NOI
NOC

PROPOSED FINAL VERSION

YEAR 2002
303(d) LIST

September, 2002

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Pollution Control
Planning and Standards Section
6th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1534

What Is the 303(d) List and Why Is It Important?

The 303(d) List is a compilation of the streams and lakes in Tennessee that are "water quality limited" or are expected to exceed water quality standards in the next two years and need additional pollution controls. Water quality limited streams are those that have one or more properties that violate water quality standards. They are considered to be impacted by pollution and not fully meeting designated uses.

Additionally, the 303(d) List prioritizes impacted streams for specialized studies called Total Maximum Daily Load (TMDL).

The 2002 303(d) List will update and replace the previous one published in 1998. (EPA suspended the requirement to publish a List in the year 2000 due to ongoing attempts to revise the 303(d) regulation.)

Once a stream has been placed on the 303(d) List, it is considered a priority for water quality improvement efforts. These efforts include traditional regulatory approaches such as permit issuance, but also include efforts to control pollution sources that have historically been exempted from regulations, such as certain agricultural and forestry activities.

If a stream is on the 303(d) List, the Division cannot allow additional loadings of the same pollutant(s). In extreme cases, it may mean that dischargers will not be allowed to expand or locate on 303(d) Listed streams until the sources of pollution have been controlled.

Which Tennessee Streams Are Not On the 303(d) List?

Streams considered unpolluted, plus streams that the Division cannot assess due to a lack of water quality information, are not found on the List. Additionally, streams where a control strategy is already in the process of being implemented are not appropriate for listing. (The condition placed on the control strategy is that the requirements must be expected to result in the attainment of the water quality standard before the next 303(d) listing cycle.)

Thus, any stream not on the 303(d) List can be assumed to either be unassessed, unpolluted, or with an effective control strategy already in place. A list of streams where TMDLs have already been generated and approved for specific pollutants is included as Appendix C.

At one time, EPA advised states to not list streams if a TMDL would be of little practical benefit, such as when pollution has been caused by **historical** rather than by current activities. A good example would be lakes with a fishing advisory due to sediment contaminated with legacy chemicals from past discharges.

In 1998, EPA reversed this position and now advises that these streams must be included on the 303(d) List and prioritized for future TMDL generation. We are aware that future revisions to the TMDL regulation may revisit this issue. For the 2002 303(d) List, the Division has listed all impacted streams as uniformly needing a TMDL without regard for the probability of future success of such an activity.

Hiwassee River

This basin contains the following USGS Hydrologic Unit Codes: 06020002 (Hiwassee River).

Waterbody ID	Impacted Waterbody	County	Partial	Not	CAUSE (Pollutant)	Pollutant Source	COMMENTS
TN06020002 001 - 0100	AGENCY CREEK	Meigs	32.7		Pathogens	Pasture Grazing	
TN06020002 005 - 0200	UNNAMED TRIB TO CANDIES CREEK	Bradley	6.7		Siltation Other Habitat Alterations	Pasture Grazing	
TN06020002 008 – 1000	HIWASSEE RIVER	Bradley McMinn	7.7		Pathogens	Agriculture	Fecal levels may be lower now, but not enough data to consider de-listing.
TN06020002 009 – 2000	SOUTH MOUSE CREEK	Bradley	6.5		Unknown Toxicity Siltation Other Habitat Alterations	Urban Runoff/Storm Sewers Illicit Connections/Illegal Hookups/Dry Weather Flow Channelization Bank Modification/Destabilization	Upper South Mouse Creek
TN06020002 012 – 1000	CHATATA CREEK	Bradley	27.6		Siltation Other Habitat Alterations Pathogens	Pasture Grazing	
TN06020002 018 – 3000 & 4000	HIWASSEE RIVER	Polk	11.4		Flow Alteration	Upstream Impoundment	Provides habitat for the federally listed Cumberland bean pearly mussel (Villosa trabalis). Section between Apalachia Dam and Powerhouse impacted by flow diversions.
TN06020002 081 - 0100	CANE CREEK	McMinn	13.7		Pathogens	Pasture Grazing Urban Runoff/Storm Sewers	
TN06020002 082 – 2000	CHESTUEE CREEK	McMinn Monroe	17.9		Pathogens	Pasture Grazing	Upper Chestuee is impacted.
TN06020002 083 – 1000	OOSTANAULA CREEK	McMinn	5.7		Pathogens	Pasture Grazing	A fecal coliform TMDL has been developed for this watershed.
TN06020002 083 – 2000	OOSTANAULA CREEK	McMinn		21.1	Pathogens	Pasture Grazing	Water contact advisory. A fecal coliform TMDL has been developed for this watershed.

Waterbody ID	Impacted Waterbody	County	Partial	Not	CAUSE (Pollutant)	Pollutant Source	COMMENTS
TN06020002 083 – 3000	OOSTANAULA CREEK	McMinn		7.4	Nutrients Pathogens	Major Municipal Point Source Urban Runoff/Storm Sewers	Water contact advisory due to bypassing & collection system problems in Athens. A fecal coliform TMDL has been developed for this watershed.
TN06020002 083 – 4000	OOSTANAULA CREEK	McMinn		8.5	Pathogens	Pasture Grazing	Water contact advisory. 319 Project in this section. A fecal coliform TMDL has been developed for this watershed.
TN06020002 083 – 5000	OOSTANAULA CREEK	Monroe	6.2		Pathogens	Pasture Grazing	A fecal coliform TMDL has been developed for this watershed.
TN06020002 084 - 0500	LITTLE NORTH MOUSE CREEK	McMinn	8.5		Pathogens	Pasture Grazing	
TN06020002 084 - 1000	NORTH MOUSE CREEK	McMinn	45.2		Pathogens	Pasture Grazing	
TN06020002 085 - 1000	SPRING CREEK	McMinn	33.8		Pathogens	Pasture Grazing	
TN06020002 087 - 1000	ROGERS CREEK	McMinn	21.6		Pathogens	Pasture Grazing	
TN06020002 088 - 1000	PRICE CREEK	Meigs	6.9		Pathogens	Pasture Grazing	

Conasauga River

This basin contains the following USGS Hydrologic Unit Codes: 03150101 (Conasauga River).

Waterbody ID	Impacted Waterbody	County	Partial	Not	CAUSE (Pollutant)	Pollutant Source	COMMENTS
TN03150101 012 - 0200	MILL CREEK	Bradley Polk	20.1		Nitrate Pathogens	Pasture Grazing	
TN03150101 012 - 0300	BALL PLAY CREEK	Polk	5.0		Nitrate Pathogens	Pasture Grazing Septic Tanks	

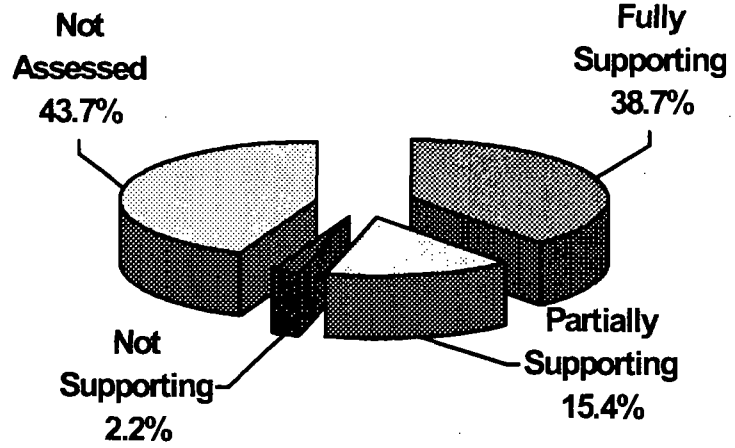
Hiwassee River Watershed Atlas

HUC Code:	**TN06020002**	
Counties:	Bradley	Meigs
	McMinn	Monroe
	Polk	
Ecoregions:	66g	66e
	67f	67g
	67h	67i
Drainage Size of Watershed:		1011 square miles
Stream Miles in Watershed:		1,657.0
Stream Miles Fully Supporting:		640.8
Stream Miles Partially Supporting:		255.0
Stream Miles Not Supporting:		37.0
Stream Miles Not Assessed:		724.2
Lake Acres in Watershed:		None
TDEC Monitoring Stations:		53
Non-TDEC Monitoring Stations:		21
Advisories:		1
Watershed Monitoring Group:		2

Surface Water Quality in Hiwassee River Watershed

About half of the watershed is in Tennessee with the remainder in North Carolina and Georgia. This is a predominantly rural area defined by farms, small towns, and the Cherokee National Forest. Sixty-nine percent of assessed stream miles are fully supporting. Pathogens from agricultural activities affect 88 percent of the impaired stream miles.

A part of the Hiwassee River is designated as a State Scenic River, and is popular for recreational boating and fishing. Four high quality streams are subecoregion reference sites, Gee Creek in 66e (Southern Sedimentary Ridges), Brymer and Harris Creeks in 67g (Southern Shale Valleys), and Blackburn Creek in 67h (Southern Sandstone Ridges).



2002 Assessment of Rivers and Streams in Hiwassee River Watershed

Reference 14

Federal Emergency Management Agency

National Flood Insurance Program

City of Athens, McMinn County Tennessee
Flood Insurance Rate Map
Panel 3 of 5 # 4702110003 C
December 4, 1986

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF ATHENS, TENNESSEE
McMINN COUNTY

PANEL 3 OF 5
(SEE MAP INDEX FOR PANELS NOT PRINTED)

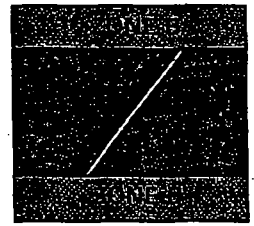
COMMUNITY-PANEL NUMBER
470211 0003 C

MAP REVISED:
DECEMBER 4, 1986

Federal Emergency Management Agency

KEY TO MAP

500-Year Flood Boundary
100-Year Flood Boundary
Zone Designations*
100-Year Flood Boundary
500-Year Flood Boundary



Base Flood Elevation Line With Elevation In Feet** — 513
Base Flood Elevation in Feet Where Uniform Within Zone** — (EL 987)
Elevation Reference Mark — RM7×
Zone D Boundary
River Mile — •M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors

NOTES TO

Certain areas not in the special flood hazard areas may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Map Index.

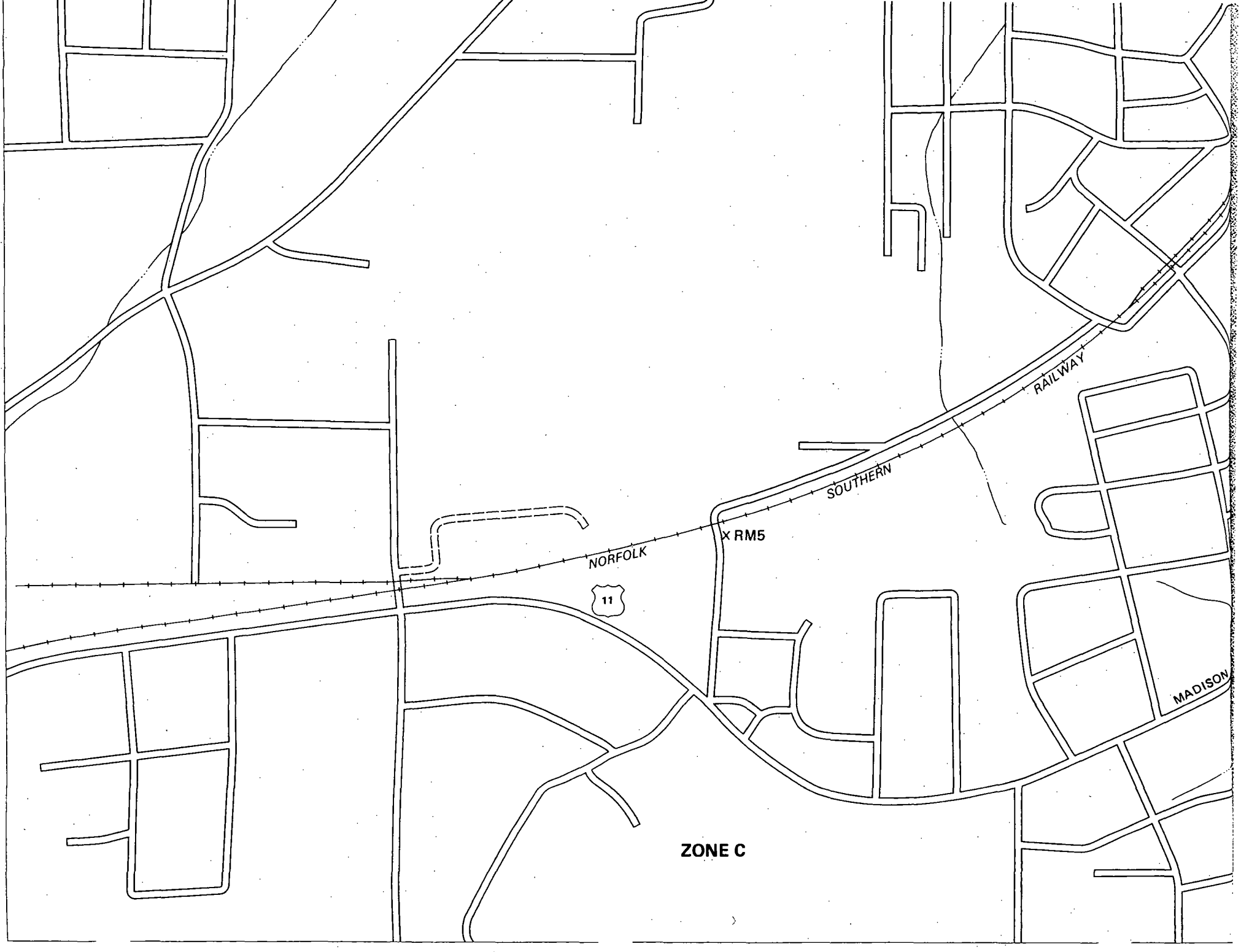
INITIAL IDENTIFICATION:
FEBRUARY 1, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
JUNE 15, 1978

FLOOD INSURANCE RATE MAP REVISIONS:
Map revised December 4, 1986
to change special flood hazard areas, base flood elevations, zone B boundary, and zone designations, add streets and street names and to revise corporate limits.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.


RAILWAY
SOUTHERN
NORFOLK
RM5
11
MADISON
ZONE C

Reference 15

Commerce and Insurance Department
Fire Prevention
NFIRS Database

Incident Reports
July 29, 2002
November 12, 2002

INCIDENT REPORT

FIRE DEPT- ATHENS FIRE DEPARTMENT

A. FDID	INCIDENT NUMBER	EXP. NO	DATE	DAY	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
54313	020213	00	07/29/02	2	18:19	18:20	00:30

B. TYPE OF SITUATION FOUND		TYPE OF ACTION TAKEN		MUTUAL AID
STRUCTURE FIRE	* 11	EXTINGUISHMENT	* 1	- N/A

C. FIXED PROPERTY USE		IGNITION FACTOR	
MANUFACTURING UNCLASS	* 709	SUSPICUS/NO CIVL DISTB	* 21

D. CORRECT ADDRESS	ZIP CODE	CENSUS TRACT
9 N MATLOCK AVE	37303	

E. OCCUPANT NAME	TELEPHONE	ROOM OR APT.

F. OWNER NAME	ADDRESS	TELEPHONE
CLARK,W.G.	3230 HWY 411 ENGLEWOOD TN	4238872200

G. METHOD OF ALARM FROM PUBLIC	CO.	INSP. DISTRICT	SHIFT	NO. ALARMS
TELEPHONE TIE-LINE	* 7	2	1	3

H. # FIRE SER. PERS RESP	# ENGINES RESP	# AERIAL APP RESP	# OTHER VEH RESP
75	12	2	9

I. NUMBER OF INJURIES	NUMBER OF FATALITIES

FIRE SERVICE 0 OTHER 0 FIRE SERVICE 0 OTHER 0

J. COMPLEX MOBILE PROPERTY TYPE

INDUSTRL PLNT/MFG CMPL * 70 *

K. AREA OF FIRE ORIGIN EQUIPMENT INVOLVED IN IGNITION

SHIPPNG/RECEIVING AREA * 45 *

L. FORM OF HEAT IGNITION TYPE MATERIAL IGNITED FORM MATERIAL IGNITED

* * *

M. METHOD OF EXTINGUISHMENT LEVEL OF FIRE ORIGIN ESTIMATED LOSS

* * $1,000,000

N. NUMBER OF STORIES CONSTRUCTION TYPE

1 STORY * 1 OTHER * 9

O. EXTENT OF FLAME DAMAGE EXTENT OF SMOKE DAMAGE

CONFIND BLDG ORIGIN * 6 EXTENDED BEYOND BLDG * 7

P. DETECTOR PERFORMANCE SPRINKLER PERFORMANCE

NOT IN ROOM/NOT OPERAT * 4 OTHER * 9

Q. TYPE MATERIAL GENERATING MOST SMOKE AVENUE SMOKE TRAVEL

* AST NOT CLASSIFIED * 9

R. FORM OF MATERIAL GENERATING MOST SMOKE

*

YEAR MAKE MODEL SERIAL NO. LICENSE NO.

S.

T.

COMMENTS:

OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT) DATE

_____ _____

MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE) DATE

_____ _____

INCIDENT REPORT

FIRE DEPT- ATHENS FIRE DEPARTMENT

- -
- - - -

A. INCIDENT EXP. ALARM ARRIVAL TIME IN

FDID	INCIDENT NUMBER	EXP. NO	DATE	DAY	ALARM TIME	ARRIVAL TIME	TIME IN SERVICE
54313	020306	00	11/12/02	3	17:24	17:25	17:32

B. TYPE OF SITUATION FOUND TYPE OF ACTION TAKEN MUTUA
L AID
REFUSE FIRE * 15 EXTINGUISHMENT * 1 - N
/A

C. FIXED PROPERTY USE IGNITION FACTOR

PROP UNCLASSIFIED * 008 INADEQUT CONTR/OPN FIR * 34

D. CORRECT ADDRESS ZIP CODE CENSUS T
RACT
1241 FRYE ST 37303

E. OCCUPANT NAME TELEPHONE ROOM OR
APT.
ATHENS FURNITURE 4237451833

F. OWNER NAME ADDRESS TELEPHON
E
CLARK,W.G. 679 HWY 30W ATHENS TENN. 42374510
62

G. METHOD OF ALARM FROM PUBLIC CO. INSP. DISTRICT SHIFT NO. AL
ARMS
TELEPHONE TIE-LINE * 7 2 1 1

H. # FIRE SER. PERS RESP # ENGINES RESP # AERIAL APP RESP # OTHER
VEH RESP
6 2 0
0

I. NUMBER OF INJURIES NUMBER OF FATALITIES

FIRE SERVICE 0 OTHER 0 FIRE SERVICE 0 OTHER 0

J. COMPLEX MOBILE PROPERTY TYPE

*

K. AREA OF FIRE ORIGIN EQUIPMENT INVOLVED IN IGNITION

*

L. FORM OF HEAT IGNITION TYPE MATERIAL IGNITED FORM MATERIAL IGNITED

*

M. METHOD OF EXTINGUISHMENT LEVEL OF FIRE ORIGIN ESTIMATED LOSS

*

YEAR MAKE MODEL SERIAL NO. LICENSE NO.

S.

T.

COMMENTS:

OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT) DATE

_____ _____

MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE) DATE

_____ _____

Ignition Factor

Definition

The condition or situation that allowed the heat source and combustible material to combine to start a fire. For example, the ignition factor can be a deliberate act, a mechanical failure, or an act of nature.

Purpose

The ignition factor is crucial as a guide to fire prevention, because it can indicate whether the type of fire is potentially preventable by better education, inspections, investigations and prosecutions, or some other strategy. The ignition factor is also part of the description of the entire sequence which consists of Area of Fire Origin, Equipment Involved in Ignition, Form of Heat of ignition, and Type and Form of Material Ignited. The Analysis of how these factors interact will provide valuable information on how the chain of events leading to ignition might best be broken.

Entry

Record the factor which best explains why the heat source and the material ignited were able to combine to initiate the fire. If the incident is a non-fire incident, leave blank.

Examples

An emergency medical call.

	FIXED PROPERTY USE	IGNITION FACTOR
C		Not a fire

An exposure fire.

	FIXED PROPERTY USE	IGNITION FACTOR
C		Exposure fire

Failure to clean chimney.

	FIXED PROPERTY USE	IGNITION FACTOR
C		Creosote build-up

IGNITION FACTOR

1. INCENDIARY

Legal decision or physical evidence indicates that the fire was deliberately set.

11. Incendiary, not during civil disturbance.
12. Incendiary, during civil disturbance.

2. SUSPICIOUS

Circumstances indicate the possibility that the fire may have been deliberately set, multiple ignitions were found, or there were suspicious circumstances and no accidental or natural ignition factor could be found.

21. Suspicious, not during civil disturbance.
22. Suspicious, during civil disturbance.

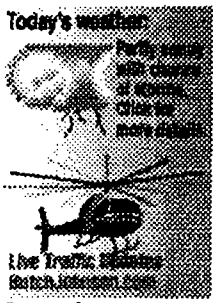
3. MISUSE OF HEAT OF IGNITION

31. Abandoned, discarded material.
    Included are discarded cigarettes, cigars, and the like.
32. Thawing,
    Falling asleep.
33. Inadequate control of open fire.
    Included are smoking out animals.
35. Cutting, welding too close to.
36. Children with, children playing.
37. Unconscious; mental, physical impairment; drug, alcohol stupor.
39. Misuse of Heat of Ignition not classified above.

Reference 16

Chattanooga Times Free Press

Article
July 31, 2002



Southeast Tennessee ▼ Chattanooganow

Electronic supplement to the

Chattanooga Times Free Press

Wednesday, July 31, 2002

Juveniles questioned in furniture plant fire

By Ron Clayton

Correspondent

ATHENS, Tenn. – Four juveniles were questioned Tuesday after a fire blazed through a closed bed plant Monday.

Athens Fire Chief Bob Miller said 75 firefighters from nine agencies brought the fire at the Athens Furniture bed plant under control in about five hours.

The fire was concentrated in a large finishing section of the plant at 9 Matlock Road, and burned through the roof before it was controlled, Chief Miller said.

No damage estimate had been set Tuesday, officials said.

Detective Hal Williams, spokes-man for the Athens Police Department, said residents in the area saw heavy smoke coming from the plant and called in the alarm Monday evening.

Later, a city resident told Athens police her son and some friends were in the building when the fire began about 6 p.m., Athens police said.

According to Officer Herschell Cruze's report, four youths were inside the empty factory when one showed the others "where some flammable stuff was" and asked for a lighter.

The officer's report said two youths lit a fire and all four ran from the building. The youths are ages 13, 14, 16 and 17, the report said.

The area was roped off Tuesday as state Fire Marshal Robert Watson did a preliminary walk-through.

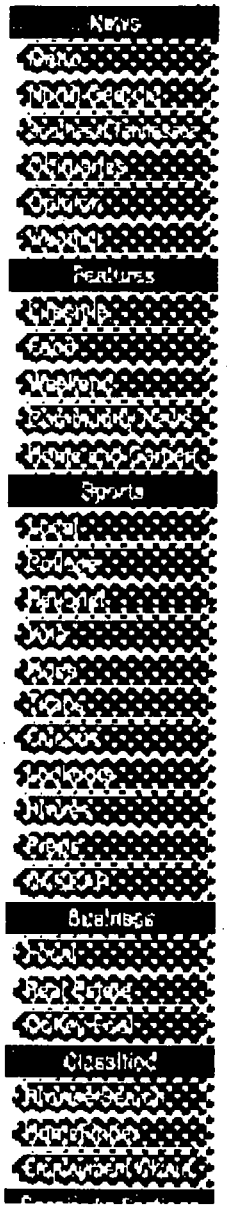
Mr. Watson said an official statement on the cause of the blaze would be made after the investigation is complete.

All three of the Athens Furniture plant buildings, once a mainstay in high-quality oak furniture, closed in May 2001, and 600 workers lost jobs.

Company officials at the time blamed poor retail sales, the result of furniture imports and a slowing economy.

Athens Furniture began operation in 1905 as the Athens Table Co. It merged with the bed company in 1969, and was sold in 1972 to R.C. Cola Corp.

The DWG Corp. acquired the company in 1987, and in 1992 a consortium of



management purchased the company.

The plants are currently up for sale.

E-mail Ron Clayton at jwalton@timesfreepress.com

To contact a staff member, click here.

Return to main page

E-mail this story to a friend To print this artic le use print button at top

Reference 17

US Census Bureau
State and County Quickfacts for McMinn County, Tennessee

Profile of General Demographic Characteristics: 2000

Table DP-1. Profile of General Demographic Characteristics: 2000

Geographic area: McMinn County, Tennessee

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent
Total population	**49,015**	**100.0**
SEX AND AGE		
Male	23,667	48.3
Female	25,348	51.7
Under 5 years	3,080	6.3
5 to 9 years	3,404	6.9
10 to 14 years	3,313	6.8
15 to 19 years	3,210	6.5
20 to 24 years	2,860	5.8
25 to 34 years	6,514	13.3
35 to 44 years	7,479	15.3
45 to 54 years	6,819	13.9
55 to 59 years	2,922	6.0
60 to 64 years	2,403	4.9
65 to 74 years	3,828	7.8
75 to 84 years	2,410	4.9
85 years and over	773	1.6
Median age (years)	37.9	(X)
18 years and over	37,288	76.1
Male	17,637	36.0
Female	19,651	40.1
21 years and over	35,431	72.3
62 years and over	8,394	17.1
65 years and over	7,011	14.3
Male	2,853	5.8
Female	4,158	8.5
RACE		
One race	48,496	98.9
White	45,445	92.7
Black or African American	2,195	4.5
American Indian and Alaska Native	133	0.3
Asian	344	0.7
Asian Indian	55	0.1
Chinese	10	-
Filipino	29	0.1
Japanese	113	0.2
Korean	25	0.1
Vietnamese	11	-
Other Asian [1]	101	0.2
Native Hawaiian and Other Pacific Islander	12	-
Native Hawaiian	1	-
Guamanian or Chamorro	8	-
Samoan	3	-
Other Pacific Islander [2]		
Some other race	367	0.7
Two or more races	519	1.1
Race alone or in combination with one or more other races: [3]		
White	45,925	93.7
Black or African American	2,360	4.8
American Indian and Alaska Native	391	0.8
Asian	396	0.8
Native Hawaiian and Other Pacific Islander	27	0.1
Some other race	458	0.9

Subject	Number	Percent
HISPANIC OR LATINO AND RACE		
Total population	**49,015**	**100.0**
Hispanic or Latino (of any race)	884	1.8
Mexican	450	0.9
Puerto Rican	57	0.1
Cuban	22	-
Other Hispanic or Latino	355	0.7
Not Hispanic or Latino	48,131	98.2
White alone	45,030	91.9
RELATIONSHIP		
Total population	**49,015**	**100.0**
In households	48,303	98.5
Householder	19,721	40.2
Spouse	11,580	23.6
Child	13,533	27.6
Own child under 18 years	10,480	21.4
Other relatives	2,105	4.3
Under 18 years	957	2.0
Nonrelatives	1,364	2.8
Unmarried partner	605	1.2
In group quarters	712	1.5
Institutionalized population	500	1.0
Noninstitutionalized population	212	0.4
HOUSEHOLD BY TYPE		
Total households	**19,721**	**100.0**
Family households (families)	14,318	72.6
With own children under 18 years	6,185	31.4
Married-couple family	11,580	58.7
With own children under 18 years	4,645	23.6
Female householder, no husband present	2,087	10.6
With own children under 18 years	1,202	6.1
Nonfamily households	5,403	27.4
Householder living alone	4,809	24.4
Householder 65 years and over	2,057	10.4
Households with individuals under 18 years	6,839	34.7
Households with individuals 65 years and over	5,012	25.4
Average household size	2.45	(X)
Average family size	2.90	(X)
HOUSING OCCUPANCY		
Total housing units	**21,626**	**100.0**
Occupied housing units	19,721	91.2
Vacant housing units	1,905	8.8
For seasonal, recreational, or occasional use	120	0.6
Homeowner vacancy rate (percent)	2.2	(X)
Rental vacancy rate (percent)	10.7	(X)
HOUSING TENURE		
Occupied housing units	**19,721**	**100.0**
Owner-occupied housing units	14,930	75.7
Renter-occupied housing units	4,791	24.3
Average household size of owner-occupied units	2.50	(X)
Average household size of renter-occupied units	2.29	(X)

- Represents zero or rounds to zero. (X) Not applicable.

[1] Other Asian alone, or two or more Asian categories.

[2] Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

[3] In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.

Table DP-2. Profile of Selected Social Characteristics: 2000

Geographic area: McMinn County, Tennessee

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent
SCHOOL ENROLLMENT		
Population 3 years and over enrolled in school	**10,614**	**100.0**
Nursery school, preschool	594	5.6
Kindergarten	669	6.3
Elementary school (grades 1-8)	5,458	51.4
High school (grades 9-12)	2,460	23.2
College or graduate school	1,433	13.5
EDUCATIONAL ATTAINMENT		
Population 25 years and over	**33,110**	**100.0**
Less than 9th grade	4,460	13.5
9th to 12th grade, no diploma	5,710	17.2
High school graduate (includes equivalency)	11,969	36.1
Some college, no degree	5,855	17.7
Associate degree	1,538	4.6
Bachelor's degree	2,255	6.8
Graduate or professional degree	1,323	4.0
Percent high school graduate or higher	69.3	(X)
Percent bachelor's degree or higher	10.8	(X)
MARITAL STATUS		
Population 15 years and over	**39,128**	**100.0**
Never married	6,394	16.3
Now married, except separated	24,714	63.2
Separated	610	1.6
Widowed	3,038	7.8
Female	2,529	6.5
Divorced	4,372	11.2
Female	2,456	6.3
GRANDPARENTS AS CAREGIVERS		
Grandparent living in household with one or more own grandchildren under 18 years	**1,038**	**100.0**
Grandparent responsible for grandchildren	564	54.3
VETERAN STATUS		
Civilian population 18 years and over	**37,211**	**100.0**
Civilian veterans	4,843	13.0
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION		
Population 5 to 20 years	**10,398**	**100.0**
With a disability	1,220	11.7
Population 21 to 64 years	**28,244**	**100.0**
With a disability	6,710	23.8
Percent employed	45.3	(X)
No disability	21,534	76.2
Percent employed	77.1	(X)
Population 65 years and over	**6,702**	**100.0**
With a disability	3,137	46.8
RESIDENCE IN 1995		
Population 5 years and over	**45,890**	**100.0**
Same house in 1995	26,933	58.7
Different house in the U.S. in 1995	18,703	40.8
Same county	10,549	23.0
Different county	8,154	17.8
Same state	4,811	10.5
Different state	3,343	7.3
Elsewhere in 1995	254	0.6

Subject	Number	Percent
NATIVITY AND PLACE OF BIRTH		
Total population	**49,015**	**100.0**
Native	48,373	98.7
Born in United States	48,196	98.3
State of residence	36,843	75.2
Different state	11,353	23.2
Born outside United States	177	0.4
Foreign born	642	1.3
Entered 1990 to March 2000	356	0.7
Naturalized citizen	234	0.5
Not a citizen	408	0.8
REGION OF BIRTH OF FOREIGN BORN		
Total (excluding born at sea)	**642**	**100.0**
Europe	63	9.8
Asia	170	26.5
Africa	3	0.5
Oceania		
Latin America	365	56.9
Northern America	41	6.4
LANGUAGE SPOKEN AT HOME		
Population 5 years and over	**45,890**	**100.0**
English only	44,472	96.9
Language other than English	1,418	3.1
Speak English less than "very well"	467	1.0
Spanish	938	2.0
Speak English less than "very well"	358	0.8
Other Indo-European languages	309	0.7
Speak English less than "very well"	36	0.1
Asian and Pacific Island languages	127	0.3
Speak English less than "very well"	71	0.2
ANCESTRY (single or multiple)		
Total population	**49,015**	**100.0**
Total ancestries reported	*38,520*	*78.6*
Arab	16	-
Czech[1]		
Danish	31	0.1
Dutch	802	1.6
English	4,650	9.5
French (except Basque)[1]	714	1.5
French Canadian[1]	58	0.1
German	4,218	8.6
Greek	78	0.2
Hungarian	24	-
Irish[1]	4,930	10.1
Italian	354	0.7
Lithuanian		
Norwegian	123	0.3
Polish	165	0.3
Portuguese	32	0.1
Russian	18	-
Scotch-Irish	1,059	2.2
Scottish	910	1.9
Slovak	9	-
Subsaharan African	57	0.1
Swedish	187	0.4
Swiss	36	0.1
Ukrainian	16	-
United States or American	12,261	25.0
Welsh	117	0.2
West Indian (excluding Hispanic groups)	26	0.1
Other ancestries	7,629	15.6

-Represents zero or rounds to zero. (X) Not applicable.

[1]The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.

Table DP-3. Profile of Selected Economic Characteristics: 2000

Geographic area: McMinn County, Tennessee

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent
EMPLOYMENT STATUS		
Population 16 years and over	**38,553**	**100.0**
In labor force	23,222	60.2
Civilian labor force	23,182	60.1
Employed	21,947	56.9
Unemployed	1,235	3.2
Percent of civilian labor force	5.3	(X)
Armed Forces	40	0.1
Not in labor force	15,331	39.8
Females 16 years and over	**20,343**	**100.0**
In labor force	10,430	51.3
Civilian labor force	10,423	51.2
Employed	9,782	48.1
Own children under 6 years	**3,619**	**100.0**
All parents in family in labor force	2,099	58.0
COMMUTING TO WORK		
Workers 16 years and over	**21,427**	**100.0**
Car, truck, or van - - drove alone	17,790	83.0
Car, truck, or van - - carpooled	2,651	12.4
Public transportation (including taxicab)	42	0.2
Walked	334	1.6
Other means	104	0.5
Worked at home	506	2.4
Mean travel time to work (minutes)[1]	23.1	(X)
Employed civilian population 16 years and over	**21,947**	**100.0**
OCCUPATION		
Management, professional, and related occupations	4,784	21.8
Service occupations	2,729	12.4
Sales and office occupations	4,528	20.6
Farming, fishing, and forestry occupations	154	0.7
Construction, extraction, and maintenance occupations	2,489	11.3
Production, transportation, and material moving occupations	7,263	33.1
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	499	2.3
Construction	1,606	7.3
Manufacturing	7,794	35.5
Wholesale trade	490	2.2
Retail trade	2,361	10.8
Transportation and warehousing, and utilities	1,252	5.7
Information	231	1.1
Finance, insurance, real estate, and rental and leasing	838	3.8
Professional, scientific, management, administrative, and waste management services	920	4.2
Educational, health and social services	3,016	13.7
Arts, entertainment, recreation, accommodation and food services	1,401	6.4
Other services (except public administration)	1,066	4.9
Public administration	473	2.2
CLASS OF WORKER		
Private wage and salary workers	17,768	81.0
Government workers	2,289	10.4
Self-employed workers in own not incorporated business	1,824	8.3
Unpaid family workers	66	0.3

Subject	Number	Percent
INCOME IN 1999		
Households	**19,755**	**100.0**
Less than $10,000	2,885	14.6
$10,000 to $14,999	1,660	8.4
$15,000 to $24,999	3,255	16.5
$25,000 to $34,999	2,979	15.1
$35,000 to $49,999	3,490	17.7
$50,000 to $74,999	3,270	16.6
$75,000 to $99,999	1,314	6.7
$100,000 to $149,999	621	3.1
$150,000 to $199,999	111	0.6
$200,000 or more	170	0.9
Median household income (dollars)	31,919	(X)
With earnings	15,070	76.3
Mean earnings (dollars)[1]	42,170	(X)
With Social Security income	6,221	31.5
Mean Social Security income (dollars)[1]	10,243	(X)
With Supplemental Security Income	1,163	5.9
Mean Supplemental Security Income (dollars)[1]	5,542	(X)
With public assistance income	602	3.0
Mean public assistance income (dollars)[1]	2,151	(X)
With retirement income	3,137	15.9
Mean retirement income (dollars)[1]	17,095	(X)
Families	**14,421**	**100.0**
Less than $10,000	1,040	7.2
$10,000 to $14,999	902	6.3
$15,000 to $24,999	2,145	14.9
$25,000 to $34,999	2,391	16.6
$35,000 to $49,999	2,924	20.3
$50,000 to $74,999	2,957	20.5
$75,000 to $99,999	1,226	8.5
$100,000 to $149,999	570	4.0
$150,000 to $199,999	106	0.7
$200,000 or more	160	1.1
Median family income (dollars)	38,992	(X)
Per capita income (dollars)[1]	16,725	(X)
Median earnings (dollars):		
Male full-time, year-round workers	31,051	(X)
Female full-time, year-round workers	20,524	(X)

Subject	Number below poverty level	Percent below poverty level
POVERTY STATUS IN 1999		
Families	**1,576**	**10.9**
With related children under 18 years	1,076	15.7
With related children under 5 years	481	19.8
Families with female householder, no husband present	**603**	**32.2**
With related children under 18 years	531	40.5
With related children under 5 years	193	50.9
Individuals	**6,953**	**14.5**
18 years and over	4,810	13.1
65 years and over	1,129	16.8
Related children under 18 years	2,080	18.2
Related children 5 to 17 years	1,406	16.8
Unrelated individuals 15 years and over	2,040	31.3

-Represents zero or rounds to zero. (X) Not applicable.

[1]If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator. See text.

Source: U.S. Bureau of the Census, Census 2000.

Table DP-4. Profile of Selected Housing Characteristics: 2000

Geographic area: McMinn County, Tennessee

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent
Total housing units	**21,626**	**100.0**
UNITS IN STRUCTURE		
1-unit, detached	14,944	69.1
1-unit, attached	252	1.2
2 units	627	2.9
3 or 4 units	686	3.2
5 to 9 units	904	4.2
10 to 19 units	70	0.3
20 or more units	221	1.0
Mobile home	3,858	17.8
Boat, RV, van, etc	64	0.3
YEAR STRUCTURE BUILT		
1999 to March 2000	720	3.3
1995 to 1998	2,325	10.8
1990 to 1994	1,755	8.1
1980 to 1989	3,637	16.8
1970 to 1979	3,977	18.4
1960 to 1969	2,928	13.5
1940 to 1959	3,906	18.1
1939 or earlier	2,378	11.0
ROOMS		
1 room	131	0.6
2 rooms	382	1.8
3 rooms	1,350	6.2
4 rooms	3,923	18.1
5 rooms	5,907	27.3
6 rooms	4,378	20.2
7 rooms	2,608	12.1
8 rooms	1,643	7.6
9 or more rooms	1,304	6.0
Median (rooms)	5.4	(X)
Occupied housing units	**19,721**	**100.0**
YEAR HOUSEHOLDER MOVED INTO UNIT		
1999 to March 2000	3,636	18.4
1995 to 1998	5,039	25.6
1990 to 1994	3,186	16.2
1980 to 1989	2,997	15.2
1970 to 1979	2,362	12.0
1969 or earlier	2,501	12.7
VEHICLES AVAILABLE		
None	1,420	7.2
1	5,697	28.9
2	7,793	39.5
3 or more	4,811	24.4
HOUSE HEATING FUEL		
Utility gas	6,280	31.8
Bottled, tank, or LP gas	2,178	11.0
Electricity	9,947	50.4
Fuel oil, kerosene, etc	414	2.1
Coal or coke	12	0.1
Wood	843	4.3
Solar energy	-	-
Other fuel	8	-
No fuel used	39	0.2
SELECTED CHARACTERISTICS		
Lacking complete plumbing facilities	125	0.6
Lacking complete kitchen facilities	65	0.3
No telephone service	757	3.8

Subject	Number	Percent
OCCUPANTS PER ROOM		
Occupied housing units	**19,721**	**100.0**
1.00 or less	19,349	98.1
1.01 to 1.50	275	1.4
1.51 or more	97	0.5
Specified owner-occupied units	**10,084**	**100.0**
VALUE		
Less than $50,000	1,915	19.0
$50,000 to $99,999	5,081	50.4
$100,000 to $149,999	1,825	18.1
$150,000 to $199,999	674	6.7
$200,000 to $299,999	389	3.9
$300,000 to $499,999	160	1.6
$500,000 to $999,999	25	0.2
$1,000,000 or more	15	0.1
Median (dollars)	80,300	(X)
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS		
With a mortgage	5,880	58.3
Less than $300	202	2.0
$300 to $499	998	9.9
$500 to $699	1,391	13.8
$700 to $999	1,857	18.4
$1,000 to $1,499	1,076	10.7
$1,500 to $1,999	251	2.5
$2,000 or more	105	1.0
Median (dollars)	742	(X)
Not mortgaged	4,204	41.7
Median (dollars)	215	(X)
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999		
Less than 15.0 percent	4,591	45.5
15.0 to 19.9 percent	1,549	15.4
20.0 to 24.9 percent	1,148	11.4
25.0 to 29.9 percent	875	8.7
30.0 to 34.9 percent	490	4.9
35.0 percent or more	1,327	13.2
Not computed	104	1.0
Specified renter-occupied units	**4,617**	**100.0**
GROSS RENT		
Less than $200	579	12.5
$200 to $299	517	11.2
$300 to $499	1,812	39.2
$500 to $749	877	19.0
$750 to $999	74	1.6
$1,000 to $1,499	59	1.3
$1,500 or more	-	-
No cash rent	699	15.1
Median (dollars)	409	(X)
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999		
Less than 15.0 percent	1,112	24.1
15.0 to 19.9 percent	572	12.4
20.0 to 24.9 percent	442	9.6
25.0 to 29.9 percent	415	9.0
30.0 to 34.9 percent	269	5.8
35.0 percent or more	1,035	22.4
Not computed	772	16.7

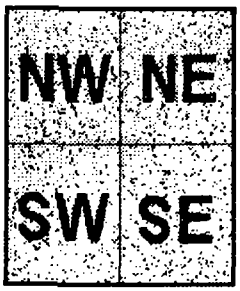
-Represents zero or rounds to zero. (X) Not applicable.

Source: U.S. Bureau of the Census, Census 2000.

Reference 18

Department of Environment and Conservation
Division of Natural Heritage

Rare species of McMinn County
Updated July 25, 2002



Element Occurrences by Quarter Quad

Index of Quarter Quads
Click on the first letter of the quad name
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

"US•" indicates both U.S. protected and Tennessee protected species
"TN•" indicates Tennessee protected species

Updated July 25, 2002

The GIS coverage is in ArcView Shape File compressed .zip format (download instructions). The coverage is unprojected (decimal degrees NAD 83). Please be sure to check back often to ensure you have the latest coverage from the Tennessee Division of Natural heritage. If after reviewing the quarter quad shape file you find that you would like more complete environmental review, please contact our Environmental Review Coordinator.

The quarter quad coverage will indicate whether a species is federally or state listed, for more specific statuses of plants and animals, please visit:

- Rare and Endangered Vascular Plant List of Tennessee

ATHENS (SW)

US• ***LIMNOTHLYPIS SWAINSONII*** (SWAINSON'S WARBLER)